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<211> 885

<212> DNA

<213> *Pseudomonas aeruginosa*

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<212> DNA

<213> *Pseudomonas aeruginosa*

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<211> 387
<212> DNA
<213> *Pseudomonas aeruginosa*

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<210> 8
<211> 372
<212> DNA
<213> *Pseudomonas aeruginosa*

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<213> *Pseudomonas aeruginosa*

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 <211> 306
 <212> DNA
 <213> Pseudomonas aeruginosa

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 <211> 312
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 <213> Pseudomonas aeruginosa

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 <213> Pseudomonas aeruginosa

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 <211> 1482
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 13

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 <211> 651
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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 <211> 2796
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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aagggccgcc	tgcgcgtgca	atggagcgaa	cgcccagggg	acgcctgtct	gctggattac	2520
gacctcgaca	ctggccctcg	ccaggctatc	gaaccgggac	aggcggtgat	ccgcctgcag	2580
ggcacctgca	cgcccgtctc	ggaggcacca	tga			2613

<210> 22
 <211> 747
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 22						
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cccgccatcc	cggctcaaag	cagcgtgggtg	atcatcggtg	ctcgcgtgat	ttatcccggc	120
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gcctggatcg	acaacgacga	cccctcctcc	accccgagga	ctgcaaacgc	gccctttctg	240
gtcagcccag	cggtgacgcg	catagccccc	ggcagcgggc	agaccctgcg	cctcctgtat	300
accgggctcc	cgtcgcccga	ggatcgcgaa	tcgttggttc	atctcaatgt	gctgcagatc	360
ccgcccgcg	acctggccaa	ggccgagcgc	aaccagatgc	tgctgatgca	gcgcagtcga	420
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ctgtcgagca	tgggtcccgc	caaaggccag	gcgagtggtg	cggcggaacg	cccttcgccg	660
ctcgccccag	gaccgggtcca	ggtgaacgcc	ctcttgatca	atgactacgg	cgcgcgaaatg	720
gaggtccagc	atgttctgcc	acgttga				747

<210> 23
 <211> 549
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 23						
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gcggctgcca	ataccatcac	cttccacgga	gaagtgaccg	accagacctg	ttccgccgtc	120
gtcgacggac	gaaccgaccc	gaccgtgata	ctcgacaccg	taccggtaag	cgctcttgac	180
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gacatcgatg	tcgcaggagg	cgagaccagc	accagctacg	actatgccgt	ccgctacatc	480
tccgaagcga	ccaccgtcac	tccgggaccg	gtgctcgggt	cggtgacctg	caccctgcgt	540
tacgagtaa						549

<210> 24
 <211> 266
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 24						
agtccgcacg	gtagtgcga	ctggaagcgc	ttctgtgctg	ccaacaacct	ggagcccagc	60
atgagccggc	goggcaattg	ttgggatatg	ccgtggcgga	atccttcttc	agtagtttga	120
agaaagacgc	tatccgcaaa	cgcattctaca	aaacccgaga	catggcccgc	gcggtgtttt	180
ttgactacat	cgaggtcttc	tacacccgaa	cccggcgga	cagtcattctg	ggtggcgctca	240

gtccccgagggc ctttgaaagc gcctcg

266

<210> 25
<211> 747
<212> DNA
<213> *Pseudomonas aeruginosa*

<400> 25
atggctgaag tcaactcaacg agcagagcag caacaagaga gccagaagac ccttctcggc 60
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caggccatgt ttgagtacga actcagttgg ctgtcgcagg ggctgctaca cagcgtcgtc 240
gtgcaggagc caggtcgaac cgccacctgg ctggcccagt tggcctatga ctggttggtc 300
gtgaagaccg ggatggtcga ctggatgacc aacatgacta ccatcgcgca ggccgggcca 360
cggagccccg tggacgttcg ctatctcacc gccagggtg tctccacgct gcagaactac 420
ggcctggccg cgctgtacac ggtgctgaca ttcgctcgtg gcctggtgat cctggtcatg 480
acgatcccgt tattcgtgat ggccgcgttc accggcctgg tggacggcct ggtgcgcggc 540
gacctgcgca agttcggcgc cgcccgagg tccagctacc tctaccacaa ggccgcgggc 600
agcatcattc cgctagcggg cgtcccttgg acgctctacc tggcaattcc catcaacatc 660
aatcccctgc tcatcctggt gccctgcgcc gcaactgctc gcgtagcggg gtgcatcaca 720
gcatccacct tcaaaaagta cctatag 747

<210> 26
<211> 2235
<212> DNA
<213> *Pseudomonas aeruginosa*

<400> 26
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accgtgtgct tcaccgcagc cgcgctctgc atcgtcgcgc cgtggacgtt ctccctcact 120
ccgctgttcg gcatcgtggc cgcgctgtgc ttgcctggc tgggtatcgt gcggctgaag 180
caggccggcg tgggtgctccg ctaccggcgg aacattcgcc gactgccgaa gtacacgatg 240
accagcccg agatgccgt cagcaacgaa cacctgttca tcggtaaagg atttcgctgg 300
acgcagaagc atacgcagcg cctggcagat acctacctgc cccagttcgc ctcttacgtc 360
gagccctcgc cctctacga gcgcgcgcgc cggttggaga agcagctcga gttcgcccc 420
ttccccctga agctggctgc caaagccact gcctgggacg tggcctggaa cccgcacgg 480
ccgctgcgc ccgtgggccc tttgcctcgg ctccatggca tcgagccgcg cgaacaggac 540
gtaggcctgc aactgggcca gcgcgtcggc cacacactgg tactcggcac cacgcgggtg 600
ggtaagacgc gcctcgcgga gctgttcac acccaggata ttgcgcgcac tcaactgccg 660
gtacgacgcc ggccgggtgaa gatgggcccg cggaccaga cggttcacca cggctatcgg 720
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cgcgcaagg ccggtcagat catcggaacc ttcaacaacc tgttcagtgt gcgggtgcgc 1800
gagaccgcca cggccgaact ccttaccat cagctcccca aggtccagat ctacaccagg 1860

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acgccggcgga gcgggcgccaa cgacgcgata aacaacaaca agaaggtagc cttcacctcc 1920
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ggtctgcccc aaggacaagc gttcgcgcta ctcgagggcg gcaatctctg gaagatccga 2040
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gccggtatgc gcaagggcca ggccgccaac agcgagtggg gggagggcgc gggatactcc 2160
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```

<210> 27
 <211> 258
 <212> DNA
 <213> *Pseudomonas aeruginosa*

```

<400> 27
atgactactc atctgatcac cctagtcata aagcagccga ggcagctca ggcagccaa 60
ctcatgtacc aggagttgct cggactgata tcacgctacg gcggtgaggt gacgtccaag 120
gccttgaggg acgagtcgac cctctgcgag ctgctggtgc agatgctgcc tgatcatgag 180
gtagagcaag ccaggaaaca ggtgctcgaa cttcatgcca agggccgcct gcaggcgccg 240
gcaagcctga aggtgtaa 258

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<210> 28
 <211> 501
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<400> 28
atgaagaagt tccttgccac gctggcattt tgcacggcgt tcgcgactca agcctggggc 60
gccgggctga tcgttgctga agacctcggc ggcgcctcgg cgctccccta ctaccagggc 120
ctggatccgc agccatccgc ttccgcacca ggacctggcg acctgggcgt ccgtggctca 180
ggtgcgtttc cagttcgctc cgcccgcta tcgccaggac ggggtccagg gcgcgccatc 240
aacgtccag gcctgcaact gctgttccct gtccggcgac acacgtgtc tcgaacctgg 300
ctgaaagagc gaggcgacga gcttcgagac ctccaagccg tgggcctggc agtgaacgtg 360
gccagcgaag cgcgcctgac ggaaatccgg gcctggggga aaggacttca gatattgccg 420
gcgcggcgcg acgacctggt cgaccggcta gggctgcagc attacccgc cctcatcaca 480
tccaccgcca tccagcagta g 501

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<210> 29
 <211> 582
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<400> 29
atggcaacgt ctgtagttcg agccctccag ttggccaccc tgctggtcct ggtcaacatc 60
gctcaggccg ccgtggatcc accgcccggc tacaagcaaa tcgccctgcc caaaggggtt 120
ccggccgagg tgctctactc ggtcgcgctg accgagagca aggtcctgct gcgcggcgaa 180
tacgttccct ggccctggac attgaacgtc gccgggaaat cttactacta cgcgaccgcg 240
accgcccgtt gcacagcgct actcggcgcg atcaacctct acggggccaa gagcgtcgat 300
tccggcctcg gccaggtcaa catcggctgg aacggacatc gtttctccag cccctgcgag 360
tccctggatc cgtacaagaa cctggacgcc acctccgaca tcctgatcga gcagcgggac 420
gccctgtatg catccgcccc gggaagaccg gtggactgga tccaagttgc cggccgctac 480
caccgccccg ccggcgcgcg gcctgcgcgc aaataccgta ggacggtttc ccgccacctt 540
agccaagttc tcggcgctcaa cctactggtg accaatccat ga 582

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<210> 30
 <211> 756
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 30

atgatcagaa	ccgtatcgct	cctgtccggc	ctgatgctgc	tgctgagcta	tcccgcagcc	60
ggccaggagg	cgggcggaag	ccgagaggcc	agcagccaac	tgtccggtag	ccaactcggc	120
acgctgaaac	aacagacatc	tcagagcgac	ctggcccagg	agtggggact	gaaccaacag	180
gaatggaccc	gctaccagac	gctcatgcaa	ggcccccg	gcgcttactc	gcctggtatt	240
gatccgctga	ccgcgctggg	catcgaggcg	cgatcggcag	aggaacggcg	gcggtatgcc	300
gatctacagg	tccaggccga	acggcgccgg	gtcgagaagg	aactcgccta	ccagcgcgca	360
tacgacgaag	ccttcgccc	cgccatcca	ggcgagggg	tgatccgcct	caccgaaagc	420
agcacagcca	acccgtcggg	cacgccgaac	atgagcccag	cgttgcagag	cagcggggcg	480
ctggccctgt	tcgtccagga	caactgcacc	gcctgcatcc	agcgggtccg	cgacctgcaa	540
catgcagaaa	aggagtccga	cctctacttc	gtcggtagcc	agaacgacgc	agagcgagtg	600
cggcgctggg	caatcctcgc	cggcacgcac	ccgaagaagg	ttcgagcaa	gcagatcacg	660
ctcaatcatg	acgagggccg	ctggatggcc	ctaggactgg	gcggagccct	tcccgcctgt	720
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<210> 31
 <211> 690
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 31						
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ctgctgagct	accagcagta	ccaactcggt	cagctccgat	caggcgtgga	cagtgcgcgc	120
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tccaaccgaa	ttgacgctgc	gcaggcggtc	gccaaagcag	cctccgatgc	cgtcgagaac	300
ctggctcaga	ccaccgcctc	ggccggcgac	ctcttggtgc	tcaaggcaac	cgtggagaca	360
ctggacgggt	ctgtccgcac	gcttcaagaa	aagcaggcca	aggcgccgcc	gctgatcgtg	420
ccagcgccaa	aacgccccat	acccgccaag	cccaagccga	aacccaaacc	gatggagccc	480
ccgcccttct	cgatccttgg	cgtggagtat	cgcgggggag	aacggtttct	gtcggttgca	540
cctccgggat	ccaccagct	cagccagatc	tacctcattc	gccggggaga	tgccgtcgcc	600
ggcacgacct	ggcgactgac	cgaccttgac	gatggtaccg	cgcacttcga	cgtcgccggc	660
acctcgcgca	gcgttcgcat	ccaaccatag				690

<210> 32
 <211> 217
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 32						
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agccgaatga	cctcactgac	tactccacct	caacgagtcc	gccccatcgt	cgatccgcca	120
gcgacgcggc	gatgccaatc	acttggtttt	ttcggtgcag	gtcagcctgc	tgtgctatcc	180
agcgttcagc	cctgatgcgc	gacgaagagc	ccccgag			217

<210> 33
 <211> 1032
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 33						
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tcgcctgccg	aggctcattc	gtcgatacaa	aagtctttat	ctgtgcaggc	aatctccaca	120
actgtcccaa	tactggagtt	tccttcggaa	accgtatacg	cctatgcac	gtacataaat	180
gcattaagta	tcgggtcaacg	catagatcct	gcattcacc	agagcttaac	gagtgccata	240
tccaacctgg	caggctcgcc	gattgcagta	agcgacattt	acaaaaaat	tcatgaaacc	300
acactgagaa	cacctgttga	gatgggcgtt	cgctctaata	gcacacctt	tgaggagtat	360
caggccacca	taaatcagca	agccatcaac	atggttcaag	atatgcagga	tgagacaaa	420
ggtgagaagg	tgaggccct	ccaggccaat	atgcagttcc	tgtatggaca	ggagataaat	480
actgatttca	tcgtctgtaa	tgaactcgct	gctgggcaga	gagcgaaaac	cgtcgcaata	540

gttcaggggc	atatcaccat	cgggtacggc	ttcgatacct	tcgtgcatga	agcgtccgag	600
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catgattggc	cggcagtcac	ccatgaactt	agaaactgga	atgggtgtacc	gaatgatcct	960
ctccagttca	ttacaaaacg	attggaagag	cgagccaagt	atctggcaat	atccttcaac	1020
tatgagcaat	ga					1032

<210> 34
 <211> 666
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 34	
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atgtcagctg	atgtcagctg
gtacagcttg	tgagggttg
ggagatgtct	cgaaaatcga
gttatcctgc	ttcaactcca
gccttgatca	gttctgtctc
tatctaaacc	tgctgaaaca
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ggcgtcttaa	ctcaatcaca
ctcactcagg	gaatcggtgt
atagccactg	gtattcggtt
gttttag	

<210> 35
 <211> 675
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 35	
atgacccaag	ctgcgaaaat
atcaatatct	ggccggaaaa
aatggggcta	catgcagcct
ccgtattcct	ctgcttcctg
gtcaaacgtg	aggaaaattc
gaaggagcct	atagcgtccc
cgacaaaatg	tgggtatgat
aagcttttgt	cagactgcgc
acacttgcca	tgatcagtgc
cgggtgcaaa	agcaaattcc
gcggagcacg	ctttcgctat
agcgacgaga	aataa

<210> 36
 <211> 246
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 36	
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gccggccgct	gcccgcagcc
ccccggtacg	cgagagcctt
ctcagcaagc	cagccgcgcg
ggttga	

<210> 37
 <211> 360
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 37
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 aagaatgac gactgcttaa acagctgctt accgaagact tcgttgaatt tggagctatc 120
 ggcaaaagct ggacgaaagc ggaggtgac gtgggactaa aatcccagac ttggatcaaa 180
 aggacaatcg aggatttcaa actgctgtg cttgcagatg gtgtcgcgtt agcaacgtac 240
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<210> 38
 <211> 1536
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 38
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 accctcatcg aacagttcaa gttcgaaatc gctctgctca aacgccacaa gtttgccaa 180
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 ggcaaacgag cagcagctat catgagcctg atccagtcgc ctgcgcatgaa cgggcatgat 1440
 ccgtatgcct acctgaagga cgtgctaact cgctgcccga cgttacggtc gaaagacatc 1500
 agccagttgc tgccgcatca gtgggtacag atctag 1536

<210> 39
 <211> 336
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 39
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 ctggttcgcca atcgccgggc taaccgaatg aaagtgtgtg tgcacgatgg cgtgggcac 180
 tggcttgccg cgcgtcgact gaaccaaggc aagttccact ggcccgcat tcgccatggc 240
 tgcgaggtcg aactcgacag cgaacaactc caggccttgg tgctgggcct gccgtggcag 300
 cgcgtcggca caggcggtgt gatcagcatg ctgtaa 336

<210> 40
 <211> 267
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 40
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 caacctgggg caacgggtgtc cagtgtcgcc atcagccacg gcatcaacgc caatgtcatc 120
 cgcaaatggc tgacgtctta tcgagaccag cccgtaccag cctcgttacc agcctttgtc 180
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 gccgggcaaa tgatcacggg gaaatag 267

<210> 41
 <211> 1227
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 41
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 gataaactgg agcagcacat tggcatgaat agaagcgctc cattctgggt gatccgtggc 240
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 ggcggccata cggctcattgc aaatggaatc actgaaattc ccgacgggga tgggtcttggg 1140
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 atgggtaagc atgtatcact aaagtaa 1227

<210> 42
 <211> 2250
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 42
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 gacttcatcg acgagttcgg cgacgagctc ctggagtcgc tcaatcgctc caaccccccg 120
 gtctataccg gctcogtcaa cgtcacgcgc cagttgggtg tggaccgact caagcgcaag 180
 cccttcgcgg cccaggccga ggtcgctccag gccatcacgc ccctgctgct ggaccgtaac 240
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 gtcgcagcgg tcatgcacgc cgccggctat cgccggaccc tggctcgtctc tccgccgcac 360
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ggagacgttc	ccgagtcagg	tctcgactcg	ttgaaccagg	atggggattc	tgtggagatg	2220
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<210> 43
 <211> 1452
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 43						
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cagagagccc	tgaagtccgg	cgatcggctg	ctgtcgtcct	acgacatcga	cgccggcgac	1380
gaatccaggc	tctggatcat	cactgaggca	gaccgcagct	caaccacgct	tttgcctcct	1440
agcgattact	ga					1452

<210> 44

<211> 606
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 44
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 acacaagagt tcttgccag gctgacgctg ggccgggaag aaaatggcat cgaccatttc 180
 cacatcatcg tggacggccg ccgcttacct gtcttccaa accaggatct cctggagaaa 240
 cgcaccaccc gtcagttccg cggcacgttg ttccgacgcc tgcataatct ttggctgttc 300
 gatcggcgcg cctcggcgcc cgaccgaggc aatcacctcg ccttcgact cctgcagcgc 360
 gatgaggatc cacaccagag gctctggccg ctggtgatgg aaacctgtcc gctccccctc 420
 ctgcagcact ggccgacgcc ggtgatggag gttctcacc agcaccagat gttgacggcc 480
 ctaccggga cgatcgga cgtctgcgcc tggcgactcg cctgcgggt cgacgtgctt 540
 gagccaccc tcggtgaggt aatccgcgaa agcattctta ccaccgatgc tcaggcgcaa 600
 gcctga 606

<210> 45
 <211> 255
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 45
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 tccaacaacg acgtcgccg cgacgacgag ctcatcgact tgttcacga ggagctgtcg 120
 ctgaccttg agcaggcgga agcggtgtc gcgctacgcg atcagtacct ctgccaggtc 180
 ttctgatcg gccaaaggcc gctgcaccaa gccgatggac tcagcttcga cctcacacc 240
 aagagcgttc ggtag 255

<210> 46
 <211> 363
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 46
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 accagtacct tcgaggcag caccgaggtg ctggcacacg cagtctccg caatgaactt 120
 tggactgtcg taaaacgaac ttttcaoctt gccgattct atttcggcaa gccggccggt 180
 cactcgatca ccatgatcga gctgcaattg ctggactgct cggccgggca atggggctac 240
 aagaccattc cggaaagcgc cggcccgttc tactacggct gtccgctgga gttcctggac 300
 ctggctcacg atgagatcaa ccaggaatgg cgtaaagcc tgacgcacga acaccaagcc 360
 tga 363

<210> 47
 <211> 276
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 47
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 ctgcgcgagg tcggaactga caatctggct gaccagttcc gcgcggcagt gttcgaccga 120
 tccgtcgtcg accaggccat catcgactg cgtgagcggg tgaagacccc ttcccgagg 180
 catgcggccg acaacgagcc ctggttgtac tgcgactggc aggccaggca aacagcttac 240
 cggctcctcc agcgccttga gcgcgcaaca cgctga 276

<210> 48
 <211> 690
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 48
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acagttccccg gacagttggc cattogaacc atcaacgggtc gctatggcga gttcaatgtg 120
ggaaaactct ggacttcgat cggggaggtt atcatcaagg atgccttcct ggatcaacac 180
accgaaggca agtaccgcgg tgatttcgtc atcgccaata tccgccccca ccactactcc 240
gccggcggtc ggctagtcac cgagatccgc gccatagtgg acagcatgac gctgaacgat 300
atggacagcc tcagcgacga ggaggtagag cgtctttccg gcaatgaggt ggatccgctc 360
gacgaagtgc ccgagatcca gctccccaca gtagtaccgg cgataccacc aaagtgcggc 420
tcaccccgaga agtcgaagcc tctgtgcctc gctgcaacca gggacgcggc tttcggtatg 480
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ttcgggacgg tctggccgct aggcgaaatc gtcaagctgg acaccacggc cgaccgcaag 600
cgactacgcc aacagtgcgt gcgactcggc gcgctgggct atgagctcga cttcaacaa 660
caggtgtgga cccgcaagga ggccgcatga 690

<210> 49
<211> 351
<212> DNA
<213> *Pseudomonas aeruginosa*

<400> 49
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atcgttctca ccaacgcggc ctggctgcgc ctggtctatc tcgccaaccc tgccagggtc 120
gacgagatgg gcacccggct ggccagtgct gttcaaaccc cctggcagga gctttctctc 180
cagccgaccc cgaagcacat ccaattccac ctgtaccaca aggaggaaga ggggcaggac 240
cgcgcgctcg cgctgctggt tctctcgata gtcgagccgt ccgatgagcc ttcctacctg 300
cgcatcgagt tgcaggaaga gtgcctcgcc gaacacccgg ttaccgagta g 351

<210> 50
<211> 708
<212> DNA
<213> *Pseudomonas aeruginosa*

<400> 50
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cagatcactg acgaaggcaa caatctaccg tgctaccgag ctctgcatga aaccacagcag 120
cacctcccag acgaatatct tcagtgcgag ctgtgctact tcaataacga tttcgccgtg 180
gtagtccaag agttagacga tgaaagagtt gaaaaatgcc ctcaccaagg aatagtgaga 240
aacgtacttt acagcatcta cggtagagcag gacggcagaa aaaagcttat cggagatcaa 300
tactcactga ccgaagccga gagtgtcggt cgataccttt cgttcggcgg cggttataac 360
ccctgctggg agatcagaaa aacacatcta cccatcagcg cgtggaatag cctctacgaa 420
aggttctcga ccaagatgcc aatccgcttg ccctcggtgt tggatcgcct cttctggtgt 480
aacgagcacg gtgccgtggg ctttcgcttg cacaacaccc cttggacgga tgagtgtctg 540
gagatcctgg agatgaccgc agccgctctt cgacaagaac agcttgctt cggcctcgac 600
gaacaccttg tcgatctgct tcacctcgcg ggacaagcag acattcggtt cctggtactt 660
gatccattcg cgcacacgct caagggcctg ccgctttatg acgattga 708

<210> 51
<211> 237
<212> DNA
<213> *Pseudomonas aeruginosa*

<400> 51
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gccatctca gcctggaact gccgttgacg gtacttatga ataagaaccg tgcttactac 120
atcggcactt ctgacgaaga aggaccagcc tcgcgcgagt cggttgaata ttaccctca 180
cgcaacttg cccaacaggc attagaccac ggcacttggc cgcaactgga atattaa 237

<210> 52
<211> 267

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 52

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cagccaggcg aagttgcaga actgactgct gagcagcagc tcgtcctcga cgtcgtcgag 120
gctaacctcc tcaacttccg gcagggcggg cagttctacg atttggatgt tgctcatgat 180
gatctccaga taatggagaa caccacgccc tggggggaga tggtgcccc cggatgggta 240
tgcgatgaag agtggcgcat agcgtag 267
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<210> 53

<211> 540

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 53

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ctgacgggca aggtgtttct ccgctttcgc ttacgaaact ggagaatcat catgagcaac 60
aacacccaag cccaagaagc caagtatttc gacctgcaca ccaccggtat cggctacctc 120
aatcgcattc gcgaggtacc gatccgcca ggtgaaccat tcctcgccgt aaccgtcgca 180
gccctccatg gcgcggcaga cagcgtggaa tactcctaca tcgactgcaa agtggtcggc 240
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aaacaaggca agcccgcagc aagcctcaaa ggccggctgc tcttcatctc ctggatcaaa 420
gtggatggca ccaccgtcta cgatgcgaag gaagaagctg aaaaagccca gcaaggcaaa 480
ggcgaacctc aaggtgagcc cgcagccccc gctgagcacg ctgaacaagc cgctgcttga 540
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<210> 54

<211> 567

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 54

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ttccgcagag cgtcagtcg ccctccggtc gtagtgcaag cacaagcgcc ggttgcttg 120
agagtccagc gcatcgatcc tgcttctctg gccggccga ccgctggcga gctagaacac 180
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accgccaaag ctgaaacgcc agtcaggaag gagctcaaga tgggttcctt cgaccatttg 360
attgcacca actccgaaag cgaaatgggg agggcccttc tccagttaga gtccctgaac 420
gatcatgaga ttgctctttt gccagcacct cctggtagcg cagtctcttg ggaactccat 480
cggcgctactc aggagcaata ccaacaacgc tggcaggact acttgtccac catgacggat 540
gaacaagtag ctgctctcgg ccgctaa 567
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<210> 55

<211> 645

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 55

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atggtgtttc tcctgcaggt tgagggtgcg gagaaaacac tggccctggc ggggaagtgg 60
attccccgct gggttgcgga agggagcttc tatcgaccga ggccgaccga ccgcgctacc 120
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aagggagccc tgcgtatcac cggcgggcca ccggcagggga gaaggatccc gatgggtagc 540
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ctgatagtcc tggagcagga gcatcaggct acccatggag aggggaaaag gaggggccgt 600
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<210> 56
<211> 438
<212> DNA
<213> Pseudomonas aeruginosa

<400> 56
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caaagcgacc acgcgacctc gagcgccgaa ctggccgagg tcgacaccct ggccaggagc 120
ttgctgctct tccggtccag tctggcggag tacgcacacg ccaaccccggt ttccaccggt 180
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gcggccggtg atgctggtac ggaatccgac ctgggtggcg tcaggcgcaa cggccagtta 360
gtcacgcgcc gcctcggagc cactgtcatt gcgctcccta cgcccatccc cgaggcgcg 420
gtggtcgcgg tcaaataa 438

<210> 57
<211> 1329
<212> DNA
<213> Pseudomonas aeruginosa

<400> 57
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atcgccatcg cgaccgccgg tggcatatcg gtcctgatga gctacctgga cggcttgagc 120
gagcagcacg cggcccagca gcaacagcag gtggccaagg cagcggagaa gtacctgaag 180
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ccgatgctgc gcaacaccgg ttacctgccc gcaggcttcc gcgacaccaa catctacggc 300
cagcaatacc aggtcctggc ccgcaagccg gcggccaacc agctcgaaac gctgatcgtg 360
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gccaccgggg gctacatctc gaaaaccaac accagtatcg cccaggggcg cgctggcag 480
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gcgatcacgg ccagcggcaa catcaccacc agcgcggaca tcagcgcgca caacgtgaca 720
gccactggtg cggtgaaagc cggcactgct gacgtcgccg gcgagacgta caccggaggc 780
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<210> 58
<211> 942
<212> DNA
<213> Pseudomonas aeruginosa

<400> 58
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<210> 59
 <211> 531
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<210> 60
 <211> 1080
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<210> 61
 <211> 1581
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 61

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<210> 62

<211> 534

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 62

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<210> 63

<211> 1326

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 63

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<210> 64

<211> 1623

<212> DNA

<213> Pseudomonas aeruginosa

<400> 64

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<210> 65

<211> 1125

<212> DNA

<213> Pseudomonas aeruginosa

<400> 65

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<210> 66
 <211> 327
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<210> 67
 <211> 1497
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<210> 68
 <211> 1974
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 68						
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gacgactcaac	tgtggcaact	gctcaacgcg	aaacgccagg	ttgccaggga	cctcatcgag	1920
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<210> 69
 <211> 1890
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 69						
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<210> 70
 <211> 471
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 70						
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gctcgcttac	ttaagaccgt	gcgaaacaat	ctattttcac	gaggcaagca	tgggtggtgc	360
aactgggaca	accagcgag	gacaatacat	cttattcttt	taagtaaagc	tatccttgac	420
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<210> 71
 <211> 1926
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 71						
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<210> 72
 <211> 234
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 72						
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ctgtgccaca	tgtagtcgg	tagaactttc	ccgataacat	tgatcgagg	cgaccattgg	120
ttgagctatg	acggcagcgc	ctggtgggtc	gatgcggatg	agcccgcgac	ggaggacgag	180
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<210> 73
 <211> 246
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 73						
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gctattggtg	ctgaggccgc	gcggaaaggg	ctacgggtgt	tcgactgccc	ctacagtcac	180
cctgcgatgc	gggcgtcctg	gttgaaaggg	tttgcccagg	agcagcaaca	gcagctcgac	240
ttctga						246

<210> 74
 <211> 470
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 74						
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attcccgatg	gccaaaggtg	ctacaaggat	cgcggcggct	tctgggtgcag	cgtcgaatgg	180
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ctgaaggctg	aagcctcgcg	catttcocat	cttcgcgcat	gcctggccga	ggtcaccctg	360
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<210> 75

<211> 534
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 75
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 tttaaaggta atagggagct ggcccagttg gcggaacagt gcgaagccat ggagcagga 180
 ttgcttgaac ttgcccaggg actgctggcc caggttcgtc gccaccctt cactctactg 240
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 ccggaatacc tgctgcaaga cctctacgag atggagctgc agcgcatac cctcaacatg 420
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<210> 76
 <211> 729
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 76
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 aagttcggcg agatcccgcg ggacatcctg gagggcactc gacgctcgaa cttcgtctcg 660
 ccgatcacc ccgggcgcgtc tgacggtgat gccgatgatg acgctgaccg tgtcgaactc 720
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<210> 77
 <211> 240
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 77
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 gtaaccgtgt tgaccattac ggttgagatg tatcgctttg aaatggcgga aaaagcgatg 180
 tggggagctt tatgcaacaa agccaactac atgaactgcc aaccagatta ccaacggtag 240

<210> 78
 <211> 276
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 78
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 gccgacctcc gcgcgcgcgg cgagctgggt gattccactg gaatcactct gccagggatc 180
 cacttcggta tcggcggcaa gatgggtggt tcgggcccga acacttcgcc aaagcgaggc 240
 atcaccactc acgaggaact caaacaatgt tcttga 276

<210> 79
 <211> 1326
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 79
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 gccatttgt ataagaagcg gcttgctgcc gaaagcggcg aaccgctggc tcaacaatat 120
 tccggcatca ttttcagcgg caatcctcat gaaaccgttc cacggcgcct cctcctggat 180
 aagcgtctta ctccgctgga gcggaactgc tggcaagttt tccgcttgct catcaacgac 240
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<210> 80
 <211> 768
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<210> 81
 <211> 1740
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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 ctgacactcc acgacgtcct cccctggcac gataaccccc ggaccactcg aaaccgaaa 180

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<210> 82
 <211> 255
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<210> 83
 <211> 1017
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 83						
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gtgctccacg	cgcgcgacgc	cgagctgggc	gactcccagg	ccatcgagaa	cctgctggcc	120
gacçtcaacg	aaagctacaa	cgccaagaac	aaggcctggg	gçttçttcca	ggcgaggtcc	180
ggggcctacc	cgttcagcgg	ctggctcggc	gagtacctgg	agggcgaccg	cgacttcgtc	240
ggçttcagcc	gcgaagcggt	cgagcacctg	caaaagctga	tggaggagtc	caatctcttc	300
accggcggcc	acgtcctggt	cgccactac	cagcaaggca	tgaccgacta	cctggcgatc	360
gccctgctgc	accacagcga	aggcgtggcg	gtgaacgagt	cgctggaggt	caccccgctc	420
cgccacctgg	acctcggcca	gttgacactg	gccgcgcgga	tcaacatttc	cgaatggcgc	480
aacaacaagc	agtcgaagca	gtacatctcg	ttcatcaagg	gcaagggcgg	gaggaaggtc	540
tccgactatt	tccgcgactt	catcggtctg	caggaagggg	tggattcgcc	gagcgagacg	600
cgcacccctg	tgaaaçcçtt	cagcgatttc	gtggaaagcg	aggacatggc	cgaggaacag	660
gccccgcgag	agaccgagac	gctggctcgac	tacgccacct	cgcaggcgcg	catcggcgag	720
ccgatgaccc	tcgacgcgct	ttcggaactg	atggacgacc	agcaaccgcg	ggcgttctac	780

gactacatcc	gtaacaagga	ctacggcctg	tcgccggaaa	tcccggcgga	caagcgcacc	840
ctcaaccagt	tcgcccgctt	caccggccgc	gccgaaggcc	tgatgatcag	cttcgaggcg	900
cacctgctgg	gctccaggat	cgagtacgac	gaggagcgcg	acacgctgca	gatcagcagc	960
ctccccactc	aactccgcga	ccagctcaag	cggcgcaagg	cccaaattgg	agaatga	1017

<210> 84
 <211> 234
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 84						
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gcagaaggct	ggagcgctga	ccgctccgca	ggcggccact	tgaagctcag	caagatcggc	120
tgcgcctcga	tcttcatttc	ttccacgcca	agcgacgcac	gcggcgagct	caatgcccgc	180
gccctgctcc	gtcgagccga	caggcagcgt	tcctgaacc	aggagtcttt	ctga	234

<210> 85
 <211> 495
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 85						
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gagctcaagt	tgcgtagaag	tccttcgtgg	atctgtctga	actgcggcta	tcacctggat	120
ggcagcggcg	cacagccctg	ccctgactgc	ggaaagtcgc	gctactggac	cagcggttgg	180
agtgtaggtc	gtggccatcg	cttctcggca	gcaagggaag	agtgggaaaa	ccgcctcagg	240
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caactgcgca	cagaggctcg	catgctgcgt	tcgcgcgatg	acgacctggc	ctgcagccgg	360
cagagcgatc	gtcgcagcct	tcaggcgctg	gtgaaacgtc	tcctggatgc	cgccgccacc	420
gatagccttc	cccgtccct	tgagagatg	gagacctggc	tgagctcaa	cagcgaggag	480
accacgaatg	cgtag					495

<210> 86
 <211> 258
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 86						
atgaaggcgt	cccagaccta	tcagtgcate	gtcaagttcg	atggcgccgg	tttctggacc	60
aataccattc	agaagcagcg	tgcgacctgc	acctggagcg	acaaggtggc	agcctcccgc	120
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gtagcgcgcg	atgcctga					258

<210> 87
 <211> 528
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 87						
atgaacactg	aagcccgttt	tcagagtatc	cacgcctcgg	ccgcgttcac	cgactcggca	60
gtgggttcac	ccaatcacgt	tggggtcaac	cccatcgagc	tggaagccct	cagccaagtg	120
atctcgcgcc	tttcgcggga	cgagagcacg	gtcgcaccca	gttcgatgga	gcgagagctt	180
cgtgagctgg	aggaactggg	gtacatcgaa	atctcgacca	cccaggccgg	gactctgggtg	240
gtcactacgc	gcgctccggg	gcaattgctt	tcggcttact	tctggtcggt	atggatcccc	300
cgacacctgt	tcagctgctc	gctgaaagtg	agcctggtgc	cgcacctctg	ctgcggcact	360
caggactccc	agcacctcac	cgccgtgttc	cgcatctcag	gcagcaagga	cgccgcgcgc	420
gagttcctgc	atcagttggc	caacaactat	cccgggcatg	agccggagtt	gcccgaactg	480
gtggccggtt	aggtcgggtg	tgactcagc	aaggaggccg	agtcataga		528

<210> 88
 <211> 1363
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 88
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 attgtcggcg atcagttgca gaaggaggac ttcttcggcg atgagcatcg gctgatcttc 180
 accgccatca gcgagttggc cgcgaaggat gctccgtttg atgtcgtgac tgtgtcggaa 240
 gcgatcgaag accttcacga agctggcggg ctggcctacc tcggccagct cgccgacaac 300
 acgccctccg tggccaatat cgaggcttac gcgcagatcg ttcgcgatcg ggcacacctg 360
 cggcagctga tgtctctcgg gcaccactgc accaggaccg cctcgaacca ccaggcaaat 420
 ccctctgagg ttcaggagga gattgagcag aagctgttcg gcccttggcc aggaccacca 480
 caacgccgat ttcgtcgata tcaacaagag tctcacgaag atcgtcgaca ccatcgatta 540
 ccgcttcaac aacaacgtga cggtaacggg ggtcccgaact ggcctgaagg atctcgacgc 600
 actcaccggc ggactacaga agtcggatct catcatcgtc ggtgcccgcc ccgcgatggg 660
 caaaacgtcg tttgccctca acctggtcga caccgcgctc cagagcgacc aacagaagtc 720
 tgttcagggtg tacagcatgg agatgccggc agagcagttg ctgttcaggc ttgccgccct 780
 gttcggccac ctggacctgg gcaagctgat gaagggccaa ctgcaagaag aggattggcc 840
 cagactgtct ggcgcgatcc agcgcataaa cgactatggc agccggctgg tcatcaacga 900
 tcagggcaac ctcacgccga cagagctgcg cgccaaggtt cgccggggcg ccaggaagta 960
 cggacacccc gcgctgatat tggtcgacta cctgcaactg atgagttgcc caggcctgga 1020
 gaatcgagcc accgagatct cggaaatctc ccgctcgtg aaagcgtgg ccaaggagat 1080
 ggactgtccc gtcgtagctc tatcccagct aaatcgcggc ctagagaacc ggacgaacaa 1140
 gcgaccgaac tgcgcggacc tacgagagag cggcgcaatc gagcaggacg cggacgtgat 1200
 catgttcgtg taccgcgacg aggtctacca cccaacacc gaggccaagg gcatcgccga 1260
 aatcatcatc ggcaagtatc gcaacggctc gatcggcacc gtccacaccg cttcatcgcc 1320
 caaccagacc cgctttgccg acctggcgcc ggggacctgg caa 1363

<210> 89
 <211> 708
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 89
 atgactcgct ctgctctctc gaccatcgcc tacgaggccc tgggtcgtgc ccgccgcaaa 60
 ttcagcaacc gagaggagcg ctgcatccgc gaaacctgga ccgccgaaca ggaactggtg 120
 ctgctgcgcc tgtatccgga tatgccgaac gaggtcctgg cagccagggt gaacaaaacg 180
 ctccagcaga tctgctccag agcgtatcgg ctccgggtga aaaaaagccc tgagttctcc 240
 aagaagatcc ggcaggactg gggcagcgca actcggttca agaagggaac caccctatgg 300
 aactcgggca tgaaggggct gccgcgcgca ggcgcgcac cagaaaacgca gttcaagaag 360
 gggcaaaaagc cccacacatg gctcccagtc ggcagcacgc gggtcagcgc tgatggctac 420
 ctgcaacgaa agatctcgga taccggctat cccccccggg actggaaggg catccacatc 480
 ctgctctggg aagaacactt cgccccatc ccaaccggcc attgctctg cttcaaggac 540
 aacaacaagc agaacgtcgt catcgacaac ctggagctca tcaccggggc cgaacgcatg 600
 cgccgcaact ccatccatcg ctatccacct gagctgaaga gcgcaatccg cgtcatcagc 660
 aagctcaaac gcaccattca ggaggtcgag catgaagaac aagattga 708

<210> 90
 <211> 702
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 90
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 ggggccacgc cgaacgaggc ggaaaccgca ttgcgccagg ccgcgatcct gaagcggcag 120
 ttcgacctca gcgatgcgga gatctcggcc cacacggtg aaaccgcgtg cgttccact 180
 cgaaccaggc gctctcctgc cccatggctg catgaactgg ccgggatctg cgccagttcc 240

ttcggctgcg	actacctggc	ggcatacgcg	atgccagcgg	gctggacgtt	caagttcatg	300
ggccgagggg	tcgccctga	gctggccgct	cacgcctact	ctacgctcca	ccaccaactg	360
gtggcagcgc	gctcggctca	tgtcgcccaa	cagaagcgct	gcaagctgtc	gaccaagcgt	420
cgtcgcagca	agctcttcgt	cgaaggctgg	cttctcgag	tgcgttcgct	ggtacgtgaa	480
tttgctggca	ggccggacga	gtcgactcaa	gcagccatca	aggcctacct	cgaactacac	540
catccggcgt	tgaagtacct	ggagccggcg	gcgcttacga	aggcccttgc	ctatgaccag	600
gcctcgctgc	aagcaggctg	ggagcacggc	aaaaacactc	gcctgcaccg	cgggtgtcagc	660
cggcgagttc	agggcgcgct	cgagcagggg	ggttcccaat	ga		702

<210> 91
 <211> 687
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 91		
atgagtgacc	ccaagctcaa gccctgcccg ctctgcggca gcacgaacat tcgaatgctg 60	
gaacccgagc	tgctcgacac cgatgcctgg aactgtgcca ttgaatgcct ggactgccag 120	
gttcacatcg	ggccgtccta ctgcgagcca gaccggtaa cagcgaggta ttcagcacag 180	
atcgactgga	atagacgccc aagcgcaaaa aaccacgcgg acgagcgtga gcagttcttg 240	
atggccaacc	tgctcgccgc cctggagggtc gcaactggcg acgtagcagc cctggctatt 300	
gtcgatcggg	taagacaggc cacagaccga atttacccaa cttcgaacct ctcccctgtt 360	
ccgcaggcct	ggctcgatgt acaggccgag cgccggcgcc agatcacctg cgaaggtttc 420	
gataccagca	acgacgacgc tagcgctggc ctgatcgccc tggcgggcgg ctgctacgcg 480	
ctccatgccg	gcggcatcgg caccgactgg ccggggcgga ttcggaatgg ctctgactg 540	
ttctggccct	gggacgaaga gtggtggaag cctaagtcgg cgcgcgagaa cctggtacgc 600	
gccggcgccc	tagtgctggc cgagatcgag cgctggacc gctccgccac cgagcagggc 660	
tcaaccatct	gcaagggggg cgcgtaa	687

<210> 92
 <211> 498
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 92		
atgaacctcc	agaaccgcaa caacctccta ctgagcttga tcgccgagac ccagttcgac 60	
gcctacgtgc	aaggctacat ggccaaagca ggcgtgccc cggtgcttc cgagaatctg 120	
caaatcgagg	ctgaaggtgc tgcgatgttg cagggcctgg tcgctccggt tcgcgctcag 180	
cagcgtgcct	gtggacagtc cctgcagaac gcaactgctc aaatcgccca cgacctactg 240	
ttgcagacga	aatcgcaact ggccatcgcg gccaatgccg gttcgatcca agtgatccag 300	
cgggacatga	acagggcgat ctggaacata gctactgccg tcgatcacct ggccgagttc 360	
gcccaccct	cgcaggacac tgtgagggtc atcgaacggc tgatgctctt cgtcggcagc 420	
tcatcaagca	ctgaaggcca gcaactggcc gccgaggcaa atgcggtgct cggcatgagc 480	
gtgggaggcc	tggcatga	498

<210> 93
 <211> 681
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 93	
ctgaacaagt	tcggcagcgc cgccgacctt cggagccagc aggccaaatt gaccggcgct 60
acgcgagaaa	tacgcaagct gactggtggc ggtatcgacc tgttcgggaa gctgggttgc 120
tacttgagct	tcgaacaaaa gcagctccta caagacgcag cgcgcttgct cgactcgggtg 180
aacaagcaga	tcgagcatgc gaaggaaaag cgtgatcgct acgagaaaaa agccaagaag 240
cggcgcgagc	tacgtgagcg cctggccaag caactggtcg cctcgaaacta cccgcttccg 300
ggaaatacgc	tcgaagatcg gctggaaatc ctgcagatcg cgttgatcta caaccgggccc 360
agggtgttcg	atcacctgta ctccacgcac cagctccact caaaactcaa acgctggctg 420
gagcgtccaa	agcagctcat cggatggcgc agtgaagccg agtatttcgc tagtcagggtg 480
gggagccctg	gatgtgactt cattagccat ctgactaacg aaatcgcgta cgacgatggc 540

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agtgaagtgcg aggagcgccct ggcggtcatc aagcagaagg tcgctgactg caccgcacag 600
atcgctctga ccagcgagga gcaggaaacc cttcggtctt ggacagacgc tctgcaatcg 660
gctccggagg gcctcatatg a                                     681

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<210> 94
 <211> 930
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<400> 94
atgaatgcga aagcgacttc ggttgtatcc accaaggggtg gtgtaggaaa atccaccacc 60
gccgcccaacc tcggtgcatt ttgcgccgat gcaggcatac gaaccctcct catcgatctg 120
gaccccgctcc agccctccct atcctcgtag tacgagctgc cggaagttgc ccagggcggc 180
atttacgacc tgctcgccgc caacataacg gaccggcgga ggatcatctc caggacgatt 240
atccccaatc tggacgtcgt gatttccaac gaccagaaca atcagctcaa caacctactg 300
ctccaggcgc ccgatggccg gctacgcctg gcgaacctga tgcccgtctt gaaagaaggc 360
tacgacctgg tgctgatcga caccagggtg ggcgctcag ctttgctcga aatggttgtg 420
cttgcatcgg acctggttgt tccccccctc caaccaaca tgcttacgc ccgtgagttc 480
aaccgcggca ccatgcaaat gctcgacggc ctacgccctt atgagcgtct cggcatgcgg 540
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cacgagaatg tgcgtgccat ctccgatgag catcaggaca tttctgtgct cgaaacgact 660
gtcccggtat ccgtcgtggt tcgcaacgca gcatcgcgcg ggctaccagc gcaccgcctc 720
gaaacgcggc aaccctccaa tcgcacatca gcgcccgcgc tggaaatcat tcgaaacctg 780
gccatcgagg tctttcccgga gtggactgac cgcttcctgg cgctgacgcc gggaggcggt 840
tgacgactg gtcaaggag ggcgctgaca tggcgaagac tcctatcacc caagcccgcg 900
acgtcgacgc ggaacttgtg ctggaactga                                     930

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<210> 95
 <211> 322
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<400> 95
atggggatct accgcccga gacgtctcgc ctagcgatac cgatactgag gggccggcta 60
ccggacgaaa ggtagctgcg cctcccagca gttcgctagg cctgtaggaa aaatctggaa 120
ttaccgagag cgcttgatt ccagcgccgg catgctggca gagccccgca atttcaaggc 180
cgaaaccgca gtacctctg taatcgctga ttacgtcgag ggcacattgc tacgcctgca 240
gaatggtttc agggcctgaa aaacagaaaa gccacctaa ataggcgggc tattccatat 300
tgacatcacg tcaatgcggg cc                                     322

```

<210> 96
 <211> 1281
 <212> DNA
 <213> *Pseudomonas aeruginosa*

```

<400> 96
atgacgccgc agcagctcac cgaggagtag atcttcgcgc acgatctccg agaagccagc 60
gcgaagatct accgcgccgc gaccaaggcg ctgctcaagc acttcggccc tacggcaacc 120
gtacaggagg tggaccacag gtctgtgctg ggatggcggc gcaaggtcct ggaacaaggc 180
ctgtcgaagc ggagctggaa cacgtattcg aatcatctgc gaacgatctg gggctatgcc 240
atcgagcacg agctggtgac acaactccaa gtcaaccgtt tcagaaagac caccgtcatc 300
ccccccaggc gagcaagcaa aaccgtcgca gccgaagcca tcttgccgcg ccgcaattgg 360
ctcaacatgc aggtcgccgc cgagcgctgc actggcgatc gcgcacgcac cactcccgcc 420
tggttctggc tttgcacgtt tgaggtcttc tacttcaccg gcatccggtt gaatgcgctg 480
ttgtgcatcc gcaagcgcgga catcgactgg gaaaatcaac tgatcctcat ccgcggcgag 540
acagagaaaa ctcataaaga gttcgtagtg ccaataacgg aggggcttgt gcctcaccta 600
tcgcggtctc tgcaggaggc cgatagagcc ggattcgccg atgacgacca gttgttcaac 660
gtcaaccggt tctcaccgca ctacaagagc aaggtgatga actccgacca ggtcgaagcc 720
atgtaccgga agttgaccga gaagggttgg gtgcggatga ctccgcaccg tttccggcac 780

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accctggcca	ccgacttgat	gaaggcacc	gagcggaaca	tccacctcac	gaagtgcctg	840
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cgtgccgtgc	tgcattgccag	aagcctggcc	caaggagcgc	tggagaacgt	caggaagggtg	960
gattacagcg	gtcccccgca	agcctctgcc	aaaccgaagc	catgcgggca	acctctcgct	1020
cgaatgggtg	aagcgccgcc	acaggaggct	aggacagaac	ctgcagaacc	aagggagcac	1080
acaccaggga	caggcattca	gggagatgca	accgctgtgg	aagaagcgct	accacagcca	1140
cctgacacct	tcgagcaaag	cgtgctgttc	actctgatgg	ctcaacacct	atcgaaccgt	1200
gccgccacgg	cctccgcggc	ttccaccgca	acaagcggat	ctggaggatg	gggatctacc	1260
gcccgaagca	gtctcgcccta	g				1281

<210> 97
 <211> 378
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 97	
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ccgtcgccctg	ttcatcaacg
acaccaaggc	tttgggtgcat
60	
accgtcgacg	ggaccgccat
gctgggtcacg	ccagggaatct
tcaagcggtta	tgtccaggag
120	
catccggagg	ttgaaaagct
ggcccaggcc	aaggagaccg
ccggctggaa	gctgggtgcag
180	
cgcgcggttcg	agaaacaggg
tcttcaccga	aagaccagta
agaacctgaa	tatctggacc
240	
atcaagggtt	ctggctcctcg
caagacgaaa	gagctcaagg
cctacctgct	ccaggatccc
300	
aaattgctgt	tccctgtgca
gcctctggac	aaccgaagcc
tcacggtcat	caccgatgcc
360	
gaaggagggtg	tggaatga
378	

<210> 98
 <211> 843
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 98	
atagaccagt	tgagtgcgca
ggagtcggtg	gaagtggctt
gctcagcttt	cgatgtggcg
60	
cggtcttgct	actacgtcca
ccgtcttcga	cggcgccggtg
tcgatgctcg	ccgcgtggcg
120	
ctacgcagcc	aagtcaacca
gttggttcagc	cagagtcggg
gctcggccgg	cagccgcagc
180	
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agagggcggtg	accatcggcc
gtttccgagt	gcgtcggttg
240	
atgcgtgagc	tggtgctggt
cagcaagcaa	ccgggctcgc
acgcctacaa	acaggccacg
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gttgagcggc	cggatatccc
gaatcggtcg	aaccgcgaat
tcgcgaccga	gcatcccata
360	
caggtgtggt	gtggcgacat
cacctacgtc	tggtgcgaag
gccgttggca	ctacctggcc
420	
gcggtgctgg	atctgctgat
cggctgggcg	ttctcggcca
agccggatgc	cgaactgggtg
480	
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ctacgaacag	cgcggcaggc
cacagcaggt	gctgttccat
540	
tcagaccagg	gcagccagta
cgccagccgc	ctgtttcggc
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tcgggggaat	tgctgggata
actcgccgat	ggagcgcctg
660	
ttccgcagtc	tgaagtcgga
gtgggtcccc	tcaacgggtt
acctgacggc	gcaggaggcc
720	
caacgggaca	tcagtcatta
cttgatgcac	cgctacaact
ggatcaggcc	gcatcaattc
780	
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ggtggccgaa	gaaaaactca
acccactgtc	cgggatgggtg
840	
tga	
843	

<210> 99
 <211> 285
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 99	
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tatgaagatg	ggtgggttggg
tcggatatag	gtacttctct
60	
ctattttctt	taattgctct
catctatggg	tgtgtcggtg
gtggagggtg	atcggtatgag
120	
attgggcagc	actgctttga
gagagagcaa	aagctttccg
gagttaatga	taatgaagag
180	
gggagtgtga	ggttgaatcg
gctgaactgc	gatccaattg
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240	
gagaagctga	taagaaagcc
gcccgaatgag	ctgggtattc
actga	
285	

<210> 100

<211> 624
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 100
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 gatgagggct caaatgatgg aagtgaata tgctgggcgc aggggtggagt tgaaataaca 120
 agtctggggg aagtctcaaa ggggtgtggat gttgaagatg ttgtagtttg ttcgattctt 180
 ccaagtaata tgaagtcgag tcaaagagcg cctacactcc ctctctgca aaggatgata 240
 atttcggcaa tgccttcacc aggaacggtc actgtttctg ccagcggaga taggaaattt 300
 acaacatctt gccgggcaaa tctttatgct ccacgttatg ccaatttcta tccagacggg 360
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 caagggtgta atgtgtcatg ggacggccc accgacattc aattgggtgt tgagccatat 480
 ggcggatctg ttgttgtaaa ctacagttgc actgcattca aaacaacgat tccagtata 540
 atgagctaca gttatcgtga tggcggggca gtgtatggcg aggtccagaa tgtgtcagga 600
 ataataaatg tggttttgaa ctac 624

<210> 101
 <211> 318
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 101
 atgcttatta aaattcttcg aatttatattc ttgttgccca tagttggttt ggcacagcag 60
 gtgctgcct ccccgccgc agagtcacac tcggaacaat ctgaatcttc gtgtatcgat 120
 gtccaagtca atggagcacg tagcctgtct tataactgca tggctcagca aatgactcca 180
 cccaaagagg atcctcggcg tcggaaccct accttgaact ccacattagc gtctgaacgc 240
 gccactcgcc tgccacccac acagacagga ctttttacca gccttcatca acgtgccata 300
 tcgaactcga aagactag 318

<210> 102
 <211> 204
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 102
 gtgagtagta ctaagagtaa gccgatagcc agggggcggtg gtggccatt tggggaagtg 60
 atgaagaggt gcgggcttgt accggttcga ggaaggaata gacagcagac aggatcgctt 120
 gcgatggggc agcaggaaac catcagccc tccgtatcca gaactgctgc ttgcagcgtt 180
 aggggtgact ccctcatgcc ctac 204

<210> 103
 <211> 219
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 103
 atggaacgct tgctcgagag catttacatc aatgcccggc cggcgatgga gttgaggctt 60
 agcctcacca gctccggccg caagagaatg gtaagattg tggatgggga ggaggtcgag 120
 gttctgccag gtgaagtga gggcatcctg gagggccaaa agagggatgt tggaaatctc 180
 gccgacttct tagccaagag tctcgtggcg cgacgctag 219

<210> 104
 <211> 450
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 104
 atggaatgcc acgttcgtcc cgccacgagc agagatgcag cagcgataag ctgcgtagtt 60

atagccgccc	tgcgtagtc	aaattcacag	gactatccgc	ctgatgtgat	cgctcaggtt	120
gagcagagct	tttctcctga	agccatcacc	acacagctta	cgaagcgtag	ggtcttcgta	180
gccttattgg	gcgaaaacat	tattggcact	gccggtctcg	acggtgacgt	cgtcagaagt	240
gttttcggtt	accagctca	ccagaaaggc	ggtatcgggc	ggcatttgat	ggatgtcatt	300
catacaactg	ctgccagcgc	gggagttgga	gctgtacgtg	tgccatcgtc	gattacagct	360
gaaaggTTTT	ataccgcatt	gggttatcag	aaaatccgcg	acgagtttca	tggggcgagg	420
cgcaccatcg	ttatggagaa	gcggctgtag				450

<210> 105

<211> 1101

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 105

ttgtggttga	cctgcacgcc	acagcaggat	gtgcaggcgg	cgtagctac	agcgtcgata	60
ctcctgggcc	agttccacca	gttgggcgtg	cagctcggtc	ggtacactag	cctcgacccg	120
cttgaggaa	tcgagaagaa	cgcttctgca	ctgccgtctc	ctgcttgga	aacggattct	180
actaagttca	gcgtggtact	gaaatcgggg	ggcagggtcaa	tcgacaaagg	tatcccgacc	240
gcaggtttgt	tgccccacgt	gatggtggcc	aagtttgccg	atcacttgcc	gctgtaccgg	300
caggagaaaa	tctttggccg	cgccgggctg	gcaattgctc	gctcgaccct	ggcgagtggt	360
gtcggacaaa	ccggcgtgcg	gcttcagcca	ctggctgatg	cactgcgtga	agccgtgctg	420
aaccagggcg	tgatccacgc	tgatgaaaca	ccggtgcaaa	tgcttgccgc	aggcgagaag	480
aaaacccacc	gggcctatgt	ctgggcgtac	agcacgacgc	cgttttcagg	gctcaaagcg	540
gtggtttacg	acttcagccc	aagccgtgct	ggcgaacatg	cgcgcaactt	cctgggtgac	600
tggaacggca	agctggtctg	cgacgacttc	gctggctaca	aagccggttt	cgaacaaggc	660
atcactgaaa	tcggctgcat	ggcccacgcc	cggcgcaagt	tctttgattt	gcacgtggcg	720
aacaaaagtc	agctggctga	acaggccctg	cactcgatca	gcggcttgta	cgaggtcgaa	780
cgtcaggcgc	gggacatgag	tgatgaagag	cgctggcgaa	tacgacaaga	attggcggtg	840
ccgatcctca	aaaaactgca	tgactggatg	ttggctcagc	gagacctggt	gccaatgga	900
tcagccacgg	ccaaagccct	cgattacagc	ctgaaacgct	gggtagcgct	gacgcgctac	960
ctggacgatg	gggctgtgcc	catcgataac	aatcaggctg	agaaccaa	acggccatgg	1020
gcgctcgggc	gttcgaactg	gctgtttgcc	gggtcgctgc	gcagtggtaa	acgggcggct	1080
gcaatcatga	gcctgatcta	g				1101

<210> 106

<211> 570

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 106

atggtgaggc	ggcggagggt	cgcggtggcg	cgcgaaatgcc	tgagcctgtc	gagcgcaccg	60
aaccaggtct	tgctgatgga	tttcgtcttc	gacgcgctca	gcactgggcg	acggatcaaa	120
tgctgacgg	tggtcgatga	cttcaccaag	gtgtcggtcg	acatcttgg	ggagtacggt	180
atcagcggtt	ttcgtgtcac	gcgggcgctg	gacgagatgg	cgcggtttcg	tggtaccgcg	240
caggcgatcc	gcaccgacca	gggccccgag	ttcaccggca	aggcgcttga	tcagtgggcc	300
tgctcagcgtg	acatcaagtt	gaagctgatt	cagcctggcc	agcccacgca	gagcgccttc	360
atcgagtcac	tcaacggcaa	gttcgggggc	gaatgcctca	atgagcactg	ctcgctggtc	420
gaagccagaa	tcggtatcgc	ggcttgggcg	gattacaacg	agcaccgacc	acacagcgcc	480
attggcaatc	tctccccggc	agagcttgct	gcgaagtggc	gaaccaacca	gcagcagctg	540
aagcgggaaa	agttgatata	aaccccatag				570

<210> 107

<211> 2066

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 107

atgcatatcc	aatcggtggg	ggctactgcc	tctcgtctga	atcaggagcc	tgctgaaacc	60
ccgtcgcagg	cagcgcataa	gtccgccagc	ttgcgtcagg	aaccttcagg	gcaaggctct	120

ggggttgccc	taaagagcac	gccgggaata	ctttccggga	agttgccgga	aagcgttagc	180
gacgtgcgtt	tcagcagtcc	ccaagggcaa	ggggagtccc	gtactctgac	tgactcggca	240
gggcccgggc	agatcactct	gcgccagttt	gagaacggag	tcaccgagct	acagctcagt	300
cggccacccat	tgaccagtct	ggtcctaagc	ggcggtggtg	ccaaaggtgc	ggcataccccg	360
ggagcaatgc	tggcgctaga	agagaaaaggc	atgctcgatg	gcatccgcag	catgtccggt	420
tcgtccgctg	gcggcatcac	cgccgccctt	ttggcctcag	gtatgagccc	ggcggcggtc	480
aagacccttt	ccgacaagat	ggatcttatt	tcgtgctcg	acagctcgaa	caagaagctg	540
aagctgtttc	aacacattag	cagcgagatc	ggcgcatcgc	tgaaaaagg	cttgggcaac	600
aagatcggcg	gcttctctga	gttgctgctc	aatgtactcc	cacgcataga	ttcgcggt	660
gagcccctag	aacgcctatt	gcgcgacgag	acacgcaagg	ccgtgctcgg	acagatcgct	720
acgcatccag	aggttgacg	ccagccgacc	ggtgccgcca	tcgccagcag	attgcagtcc	780
ggctccggag	tcacctttgg	cgatctagat	cggttgagtg	cttacattcc	ccagattaag	840
acgctgaaca	tcacaggtac	ggccatgttc	gagggcgctc	cgcaattagt	ggtgttcaat	900
gccagccaca	caccggatct	ggaggtcgcc	caggcggcac	atatctccgg	ttccttccca	960
ggagtgttcc	agaaggtcag	cttgagtgat	cagccgtacc	aggccggcgt	agagtggaca	1020
gaattccagg	atggcggggg	gatgattaac	gtgccgggtc	ctgagatgat	cgacaagaat	1080
tttgacagcg	ggccactgcg	gcgcaacgac	aacctgatcc	ttgagttcga	gggcgaagct	1140
ggggaggtag	cgcccgaccg	aggtactagg	ggcggcgcg	tcaagggctg	ggtcgtcggg	1200
gtgcctgccc	tgcaggcgcg	cgaaatgctg	cagctcgagg	gcctggagga	attgcgcgag	1260
caaaccgttg	tggtgccgtt	gaagagcgag	cgcggtgatt	tcagtggcat	gctcgggtgc	1320
accttgaact	tcaccatgcc	ggacgagatc	aaggcgcatc	ttcaggagcg	cctccaggag	1380
cgagtccgtg	aacatctgga	gaaacgtctt	caggcttcag	agcgtcatac	cttcgcttct	1440
ctcgacgagg	cgctgctggc	acttgatgac	agtatgctca	ccagtgttgc	tcaacagaac	1500
ccggagatca	cagacggggc	ggtggctttt	cgccagaagg	cgcgggatgc	gttcaccgag	1560
ctgactgtcg	ctatcgttag	cgccaatggc	ttggcgggta	ggctcaagtt	ggacgaggct	1620
atgcgctccg	ctcttcagcg	actcgatgcg	ctggcagata	ctccggaacg	cctagcatgg	1680
ttggcagctg	agttgaacca	tgctgataac	ggtgatcatc	agcagttact	cgatgccatg	1740
cgcgggcaga	cggtgcagtc	gccggtgctc	gccgctgcgt	tagcagaggc	gcagcgccgc	1800
aaagtggcgg	ttattgccga	gaacattcgt	aaggaaagtt	tcttcccctc	tctgtatcgc	1860
cctggccagc	cggattccaa	cgtagctctg	ttacgtcggg	cggaggagca	gctacggcat	1920
gccaccagtc	cggcggaat	caatcaagcg	ctgaacgata	tcgtcgacaa	ctactcggca	1980
cgaggcttcc	tgcgtttcgg	caaacccttg	agttcgacta	ccgttgagat	ggctaaggct	2040
tggcggaata	aggagttcac	atgatt				2066

<210> 108

<211> 414

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 108

atgattgata	catggctggc	acagtggggc	ttgagacttc	cctcgagcaa	cgatgccacg	60
ttgcggctgc	aaccggcaga	gggaccggaa	ctggttatgg	agcgccctga	ggcggttg	120
cttttcgtcg	tcgagttggg	acttgctgct	tcagggttac	cgctgggtgt	gatcttgcaa	180
ttgtttacaag	tgaactctcc	attctcatcc	ttggcaccgg	tgaaacttgc	ggcgacgat	240
gccggtagac	ttgtgctctg	ggctgaggca	cgtgatggcg	ttgacgatgt	ggatgactg	300
aaccgcttgc	acgataggct	gcgggaagga	cattcacgat	tagtgccatt	gctagagccc	360
acgggtgagt	tggttccagc	tcagatacaa	accagcgcgt	tagtgttcgt	ttga	414

<210> 109

<211> 514

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 109

aattcgcggc	cgcggtgtcg	cgaccaaacc	tgtgataacc	tgtctcaaaa	ccctcctcat	60
catctactcc	ttcgtcttct	ggatcactgg	ggtgatcctg	ctggctgttg	gagctctggg	120
caaacttact	ctgggcacct	atatctccct	tattgccgag	aactccacaa	atgctcccta	180
tgtgctcatc	ggaactggca	ccactattgt	tgtctttggc	ctgtttggat	gctttgctac	240
atgtcgtggt	agcccatgga	tgctgaaact	gtagccatg	tttctgtccc	tggtgttcc	300

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ggctgagctc gtagctggca tttcaggggt tgtgtttcgt catgagatca aggacacctt 360
cctgaggact tacacggacg ctatgcagac ttacaatggc aatggcaatg atgagaggag 420
ccgggcagtg gaccatgtgc agcgcagcct gagctgctgt ggtgtgcaga actacaccaa 480
ctggagcacc agcccctact tcctggagca tggc 514

```

```

<210> 110
<211> 519
<212> DNA
<213> Pseudomonas aeruginosa

```

```

<220>
<221> misc_feature
<222> 239, 383
<223> n=a, c, t, or g

```

```

<221> misc_feature
<222> 239, 383
<223> n = A,T,C or G

```

```

<400> 110
aattcgcggc cgcgtcgacc aagtgcaaca cctccactg tgccttttgg accagcacca 60
acaggaatgt atccctccgt gcctcccacc ggaccacctc caggaccccc agcacccttt 120
cctccttccg gaccatcatg tccccacact ggtggtcctt atccagcccc aactgtgccg 180
ggccctggcc ccacagggcc atatcctaca ccaaatatgc cttttccaga gctacccana 240
ccatatggtg caccacacaga tccagctgca gctggtcctt taggtccatg gggatccatg 300
tcttctggac cttgggcgcc aggaatggga gggcagtatc ctaccctaa tatgccatat 360
ccatctccag gcccatatcc cgntcctcct cctccccaag cccctggggc agcaccacct 420
gttccatggg gcaccgttcc accaggagcc tggggaccac cagcaccata tcctgccctt 480
acaggatcgt atcccacacc aggactctat cctactccc 519

```

```

<210> 111
<211> 514
<212> DNA
<213> Pseudomonas aeruginosa

```

```

<220>
<221> misc_feature
<222> 506
<223> n = A,T,C or G

```

```

<400> 111
aattcgcggc cgcgtcgact gcggaggagc ctctgtcac aacaccctgg ggagctacaa 60
gtgcatgtgt cccgccggct tccagtatga acagttcagt ggaggatgcc aagacatcaa 120
tgaatgtggc tctgcgacag cccctgcag ctatggctgt tccaataccg agggcgggta 180
cctgtgtggc tgtccacctg gttacttccg cataggccaa gggcactgtg tttctggaat 240
gggcatgggc cgaggaaacc cagagccacc tgtcagtggt gaaatggatg acaattcact 300
ctccccagag gcttgttacg agtgtaagat caatggctac cccaaacggg gcaggaaacg 360
gagaagcaca aacgaaactg atgcctcaa tatcgaggat cagtctgaga cagaagccaa 420
tgtgagtctt gcaagttggg atgttgagaa gacagccatc tttgctttca atatttcca 480
cgtcagtaac aaggttcgaa tctanaact cctt 514

```

```

<210> 112
<211> 400
<212> DNA
<213> Pseudomonas aeruginosa

```

```

<400> 112
aattcgcggc cgcgtcgacg gggatgttta caacccacgc accggggtct tcacggctcc 60
ttatgatggg cgctacctga tcacggccac cctcaccccc gagagagacg cctacgtgga 120

```

agcagtgtctg	tcggtctcca	acgccagcag	tggcccagct	gcataccgct	gggtacagga	180
gagagttcct	ggaataccac	cgccctccag	gagctttgca	tacctgcggg	ggcccggggg	240
cattccacct	catcgtgcac	ctgaaggcgg	gagatgcagt	ccacgtcgtg	gtgactgggg	300
gcaagctggc	tcacacagac	tttgatgaaa	tgtactccac	athtagtggg	gttttcttat	360
atcctttcct	ttcccacctc	taaggtggct	ggggagatgt			400

<210> 113

<211> 433

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 113

aattcgcggc	cgcgctcgaca	aagaaaaaaaa	gaaagttttc	actctgggct	gtggaactat	60
ttcaggactt	cctgaggggt	ttcctctgga	gcttcctgag	tttctcctg	gacattttgt	120
ctccagggtc	cagcgccagg	caggggtggc	tcccgggaag	gctgtgggtg	ccaccctggc	180
tgactgcagc	cctctcttgc	acctctctcc	ggccatccac	ccgcaggagg	tcttccccc	240
gcactggctt	gtgaggagct	ccctctgccc	gggagaaaat	ggctcctccg	ggtcacaggc	300
tcccctccag	ggactgaggg	gcatttttgg	attgtgggga	aggcgctcca	gggcccgggt	360
ctgtggcccc	aggcctgttg	ctcggctggg	tggaggcacc	tctgcaggcc	gggagcttgg	420
tctttgaaca	cct					433

<210> 114

<211> 400

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 114

aattcgcggc	cgcgctcgacg	gggatgttta	caacccccagc	accgggggtct	tcacggctcc	60
ttatgatggg	cgctacctga	tcacggccac	cctcaccccc	gagagagacg	cctacgtgga	120
agcagtgtctg	tcggtctcca	acgccagcag	tggcccagct	gcataccgct	gggtacagga	180
gagagttcct	ggaataccac	cgccctccag	gagctttgca	tacctgcggg	ggcccggggg	240
cattccacct	catcgtgcac	ctgaaggcgg	gagatgcagt	caacgtcgtg	gtgactgggg	300
gcaagctggc	tcacacagac	tttgatgaaa	tgtactccac	athtagtggg	gttttcttat	360
atcctttcct	ttcccacctc	taaggtggct	ggggagatgt			400

<210> 115

<211> 506

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 115

aattcgcggc	cgcgctcgacc	gcaactgtca	agacattgat	gagtgtgtga	ctggcatcca	60
caactgtctc	atcaacgaga	cctgcttcaa	catccagggc	ggcttccgct	gcctggcctt	120
cgagtgcctt	gagaactacc	gccgctccgc	agccacgctc	cagcaggaga	agacagacac	180
ggtccgctgc	atcaagtctt	gccgcccaca	cgatgtcaca	tgcgtgttcg	accccggtga	240
caccatctcc	cacaccgtca	tctcgtgcc	taccttccgc	gagttcaccc	gccctgaaga	300
gatcatcttc	ctccggggcca	tcacgccacc	gcatectgcc	agccaggcta	acatcatctt	360
cgacatcacg	gaagggaacc	tgcgggactc	ttttgacatc	atcaagcggt	acatggacgg	420
catgaccgtg	ggtgtcgtgc	gccaggtgcg	gcccacgtg	ggcccatttc	atgccgtcct	480
gaagctggag	atgaactatg	tggtcg				506

<210> 116

<211> 435

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 116

aattcgcggc	cgcgctcgaca	cactgcagag	taatgctcca	tcaagtatga	tggtgaagga	60
tgaatatgtg	catgactttg	agggacagcc	atcgttgtcc	actgaaggac	attcaattca	120

```

aaccatccag catccaccaa gtaatcgtgc atcgacagag acatacagca cccagctct 180
gttagcccca tctgagtcta atgctaccag cactgccaac tttcccaaca ttcctgtggc 240
ttccacaagt cagcctgccg gtatactggg gggcagccat agtgaaggac tgttgagat 300
agcatcaggg cctcagccag gacagcagca gaatggattt actggtcagc cagctactta 360
ccatcataac agcactacca cctggactgg aagtaggact gcaccataca cacctaattt 420
gcctcaccac caaaa 435

```

```

<210> 117
<211> 427
<212> DNA
<213> Pseudomonas aeruginosa

```

```

<220>
<221> misc_feature
<222> 371, 404
<223> n = A, T, C, or G.

```

```

<400> 117
aattcgccgc cgcgtcgacc ggcggccgag gagcggcgga ctccggggcg ggggagtcga 60
ggcatttgcg cctgggcttc ggagcgtagc gccagggcct gagcctttga agcaggagga 120
ggggaggaga gagtggggct cctctatcgg gacccctcc ccatgtggat ctgcccaggc 180
ggcggcgccg gaggaggcga ccgagaagat gcccgcctcg cgcgccgctc tgctgtgggc 240
gctgctggcg ctctggctgt gctgcgcgac cccgcgcgat gcattgcagt gtcgagatgg 300
ctatgaacct tgtgtaaatg aaggaatgtg tgttacctac cacaatggca caggatactg 360
caaatgtcca naaggcttct tgggggaata ttgtcaacat cganaccctt gtgagaagaa 420
ccgctgc 427

```

```

<210> 118
<211> 427
<212> DNA
<213> Pseudomonas aeruginosa

```

```

<220>
<221> misc_feature
<222> 371, 404
<223> n = A,T,C or G

```

```

<400> 118
ttaagcgccg gcgcagctgg ccgcgggctc ctgcgcgcct gagggccgcg cccctcagct 60
ccgtaaacgc ggacccgaag cctcgcatcg cgggtcccga ctcggaact tcgtcctcct 120
cccctcctct ctcacccgga ggagatagcc ctgggggagg ggtacaccta gacgggtccg 180
ccgcgcgcgc ctctccgctt ggctcttcta cgggcgggac gcggggcgag acgacacccg 240
cgacgaccgc gagaccgaca cgacgcgctg ggggcgcgta cgtaacgtca cagctctacc 300
gatacttggg acacatttac ttccttacac acaatggatg gtgttaccgt gtcctatgac 360
gtttacaggt nttccgaaga acccccttat aacagttgta gctntgggga cactcttctt 420
ggcgacg 427

```

```

<210> 119
<211> 2780
<212> DNA
<213> Pseudomonas aeruginosa

```

```

<400> 119
atgattaaca gtcatttgct ctaccactga gctatcgcg aacgtctttc ttccaaccct 60
ggacgcttcc ggtgttgctg gattcgcgtc tcagaggcgc gccattttac ggatgcgcgc 120
gggcatgtca accctctgat ccaaaaagtt tttcttctt ttccacgagc gacaaaacgg 180
cccttcact gcatgcggca gcgctctcgc gcctaccgga cgcccatgaa aaagccccgc 240
cgaagcgggg ctttccctgt ccgccccga agaggtcagg cgaagacgat ctcgctcgct 300
tccaccttcg ccgagatacg ggcgtgcgcc atagaccggg tcgaagccga cggcaatcag 360

```

```

cttgtccagc gcctcctggc tcagttccaa ggctcagctc gcgctcggcc aggcgcttgc 420
gcaggcgacc gagctggatc tggcgatgc cggcgatctg ctgcgagacc agcggctcga 480
acaccaccac ttcgtcgatc cggttgatga attccggacg gaagtgcgca ttgaccgcgt 540
ccatcactgc ggcacgttgc gcctcgcggt cgccggccag ctccctggatc tgcgccgaac 600
cgaggttga ggtcatcacc accacggtgt tgcggaagtc caccgtacgc ccgtgactgt 660
cggtcaggcg tccgtcctcg agcacctgga ggagaatgtt gaatacatcc ggatgggcct 720
tctccacctc gtccagcagc accaccgagt agggcttgcg gcgcatcgcc tcggtcaggt 780
agccgccttc ctogaagccg acgtagcccg gaggcgccg gatcaggcg gccaccgagt 840
gtttctccat gaactcggac atatctatcc gcaccagcgc ctccctcggtc tcgaagagga 900
actcggccag cgccttgcac aactcgggtc tggccacccc ggtcgggccc aggaagagga 960
acgagccgct cggccggttc ggatcggcga ggccggcgcg cgaacggcgc acggcgcttg 1020
acacggcgac taccgcctcg tccctggcga tcaactcgcc atgcagctcc tgctccatgc 1080
gcagcagctt ctgcgcctcg ccctcgagca tcttcgacac cgggataacc gtccacttgg 1140
aaaccacttc ggcgatttcc tcgtcgggtc cctggttgcg agcaactggt tctcggctct 1200
gccgtgctgg tcgaccatct gcaggctgcg ttccaggctc gggatggtct ggtactggat 1260
gcgcgccatg ctctcgaggt cgccttgcg ccgcgcgcgc tccatctcct gcttggcctg 1320
ctcgatcttc tgctggatct gcgcgagcc ctgcacctcg gccttctcgg acttccagat 1380
ctcctcgagg tcggcgatct cgcgctcgag cttgacgata tctcctcca gcttggccag 1440
gcgcttctcg gtggttctgt cgtcttctct cttcagcgcc tcgcgctcga tcttcagctg 1500
gatcaggcga cggtcgagac gatccagttc ctccggcttg gagtcgatct ccatgcggat 1560
gcggctggcg gcctcgtcga tcaggctgat ggccttgtcc ggcagttgcc gatcgggtgat 1620
gtagcgggtg gacagcttgg ccgcggcgat gatcgcgcgc tcggtgatgc taccgcgtg 1680
tgcacttcat agcgttctct gaggccacgg aggatggcga tgggtgtctt ctgcgtcgg 1740
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gccaggccct cgacgatggc ggtcttgcgc acgcggggtt cgccgatcag caccgggttg 2160
ttcttgggtc gccgctgcag gacctggatg gtccggcgga tctcgtcgtc gcgaccgatc 2220
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gcctggcgcg actcctcgac gttcgggtcg ttcaccgctt cgccgccacg caggttggcc 2340
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gtgttctcgt ccatcgcggc cagcaatacc agctcgttgg agatgaactg gtcgcccttc 2460
tgctgggcca ggcggtcagc ctggttgagc aggcgtgcga gatcctggga caggttcacg 2520
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agggactggg cgtcggagag cgccagttgc agcttgcctg tcaaacggtc tattcgcatg 2760
ggtcgtcctt ccttctatag

```

```

<210> 120
<211> 2565
<212> DNA
<213> Pseudomonas aeruginosa

```

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<220>
<221> misc_feature
<222> 371, 404
<223> n = A,T,C or G

```

```

<400> 120
atgcgaatag accgtttgac cagcaagctg caactggcgc tctccgacgc ccagtcctctg 60
gccgttggcc atgaccatcc ggccatcgag ccggtgcacc tgctttccgc cctgctcgag 120
cagcaaggcg gttcgatcaa gcccctgctg atgcaggctg gcttcgatat cgccgccctg 180
cgcagcggcc tcaacaaaga actcgacgcg ctgccgaaga tccagagccc gaccggcgac 240
gtgaacctgt cccaggtatc cgcagcctg ctcaaccagg ctgaccgcct ggccagcag 300
aagggcgacc agttcatctc cagcgagctg gtattgctgg ccgcgatgga cgagaacacc 360

```

```

aggctcggca agctgctgct cggccagggc gtgtcgcgca aggcgctgga gaatgccgtg 420
gccaacctgc gtggcggcga agcgggtgaac gacccgaacg tcgaggagtc gcgccaggcg 480
ctggacaagt acaccgtcga catgaccaag cgcgcgagg aaggcaagct cgacccgggtg 540
atcggctcgc acgacgagat ccgcccggacc atccagggtcc tgcagcggcg gaccaagaac 600
aacccggtgc tgatcggcga acccggcgtc ggcaagaccg ccatcgtcga gggcctggcc 660
cagcgcacat tcaacggcga agtgccggac ggccctcaagg acaagcgcct gctggccctg 720
gacatggggg cgctgatcgc cggtgccaag ttccgcggcg agttcgagga acgcctgaag 780
gcggtcctca acgaactggg caagcaggaa ggccgggtca tcctgttcat cgacgaactg 840
cacaccatgg tcggcgccgg caaggcggaa ggtgccatgg acgcccggaa catgctcaag 900
ccggctctgg cgcgcggcga gctgcaactg gtccgtgcta ctaccctcga cgagtatcgc 960
cagtacatcg agaaggatgc cgcgctggag cgcgccttcc agaaggtgct ggtggacgaa 1020
ccgagcgagg aagacaccat cgccatcctc cgtggcctca aggaacgcta tgaagtgcac 1080
cacggggtga gcatcaccga cggcgcgac atcgcgcgg ccaagctgtc gcaccgctac 1140
atcaccgatc ggcaactgcc ggacaaggcc atcgacctga tcgacgaggc cgccagccgc 1200
atccgatgg agatcgactc caagccggag gaactggatc gtctcgaccg tcgcctgatc 1260
cagctgaaga tcgagcgcga ggcgctgaag aaggaagacg acgaagccac caggaagcgc 1320
ctggccaagc tggaggagga tatcgtcaag ctcgagcgcg aatacggcga cctcgaggag 1380
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atccagtacc agaccatccc ggacctggaa cgcagcctgc agatggtcga ccagcacggc 1560
aagaccgaga accagttgct gcgcaacaag gtgaccgacg aggaaatcgc cgaagtgggt 1620
tccaagtgga ccggtatccc ggtgtcgaag atgctcgagg gcgagcgcga gaagctgctg 1680
cgcatggagc aggagctgca tcggcgagtg atcggccagg acgaggcggg agtcgccgtg 1740
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cactcggtgg cccgcctgat cggcgcgcct ccgggtacg tcggcttcga ggaaggcggc 1980
tacctgaccg aggcgatccg ccgcaagccc tactcggtgg tgctgctgga cgaggtggag 2040
aaggcccatc cggatgtatt caacattctc ctccaggtgc tcgaggacgg acgcctgacc 2100
gacagtcacg ggcgtacggt ggacttccgc aacaccgtgg tggatgatgac ctccaacctc 2160
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ctgattgccg tcggcttcga cccggtctat ggcgacgcc cgctgaagcg ggccatccag 2460
cgctggatcg agaaccgcgt ggcgcaactg atcctggccg gcaaattcgc gccgggtgcc 2520
agtatctcgg cgaaggtgga aggcgacgag atcgtcttcg cctga 2565

```

<210> 121
 <211> 399
 <212> DNA
 <213> *Pseudomonas aeruginosa*

```

<400> 121
acgtcggggg cgcattgcta cgcctgcaga atggtttcag ggccttagaa acagaaaagc 60
ccacctagac aggcgggcta ttccatattg acatcacgtc aatgcgggcc taatgttcgg 120
cccagacggc tgctagacaa gaaccggcgt aacaccctt cctagcctat gcaactcgcc 180
ccgtagaaaa tgggtgggtcg tgtaggattc gaacctacga ccaattggtt aaaagccaac 240
tgctctaccg actgagctaa cgacccaagt atgaggtggt cggggtagag agattcgaac 300
tcccagacat ctgctcccaa agcaggcgcg ctaccggact gcgctatacc ccgattggaa 360
tttggtcccg cgacctggac tcgaaccagg gacccaatg 399

```

<210> 122
 <211> 811
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<220>
 <221> misc_feature

<222> 709
<223> n = A, T, C or G

<221> misc feature
<222> 9, 330, 331, 332, 620, 698, 715, 751, 759, 769, 780, 791,
806, 807
<223> n = A,T,C or G

<400> 122
gatgaaggna cccgagcgga acatccatct cacgaagtgc ctgctcaacc actcgaatat 60
ccagaccacc atgagctaca tcgaggccga ctacgaccac atgcgtgccg tgctgcatgc 120
cagaagcctg gcccaaggag cgctggagaa cgtcaggaag gtggattaca gcggctcccc 180
gcaagcctct gccaaaccga agccatgcgg gcaacctctc gctcgaatgg gtgaagtacc 240
gccgcccggag gccaggacag aacctgcaga accaaggagg cacataccag ggacaggcat 300
tcagggaggt ccaaccgtgc gggaagaagn nncgctacca cagccacctg acaccttcga 360
ccaaagcgtg ctgttcactc tgatggctca acacttatcg aaccgtgccg cctcggcatc 420
cgcggtctccc gctgcaacaa gcggatctgg tggatgggga tctactgccc gaagcagtct 480
cgcctagcga taccgatact gaagggccgg ctaccggacg aaaggtagcc gcgcctccca 540
gcagttcgct aggcctgtaa gaaaaatctg gaattaccga gagcgccctgg attccagcgc 600
cggcattgctg gcagagcccn cgcagtttca cggccaaaac cgcagtaccc tctgtaatcg 660
ctgattacgt cggggggcgca ttgctacgcc tgcagaantg gtttcagggc cttanaaaca 720
gaaaagccca ccttaaatag gcgggctatt nccatattnng acatcacgnt caatgcgggn 780
cctaattgtt nggcccagac ggctgnnctg g 811

<210> 123
<211> 812
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> misc_feature
<222> 788
<223> n=a, t, c, or g

<221> misc feature
<222> 9, 330, 331, 332, 620, 751, 759, 769, 780, 781, 794, 799,
807, 808
<223> n = A,T,C or G

<400> 123
gatgaaggna cccgagcgga acatccatct cacgaagtgc ctgctcaacc actcgaatat 60
ccagaccacc atgagctaca tcgaggccga ctacgaccac atgcgtgccg tgctgcatgc 120
cagaagcctg gcccaaggag cgctggagaa cgtcaggaag gtggattaca gcggctcccc 180
gcaagcctct gccaaaccga agccatgcgg gcaacctctc gctcgaatgg gtgaagtacc 240
gccgcccggag gccaggacag aacctgcaga accaaggagg cacataccag ggacaggcat 300
tcagggaggt ccaaccgtgc gggaagaagn nncgctacca cagccacctg acaccttcga 360
ccaaagcgtg ctgttcactc tgatggctca acacttatcg aaccgtgccg cctcggcatc 420
cgcggtctccc gctgcaacaa gcggatctgg tggatgggga tctactgccc gaagcagtct 480
cgcctagcga taccgatact gaagggccgg ctaccggacg aaaggtagcc gcgcctccca 540
gcagttcgct aggcctgtaa gaaaaatctg gaattaccga gagcgccctgg attccagcgc 600
cggcattgctg gcagagcccn cgcagtttca cggccaaaac cgcagtaccc tctgtaatcg 660
ctgattacgt cggggggcgca ttgctacgcc tgcagaaatg gtttcagggc cttagaaaca 720
gaaaagccca ccttaaatag gcgggctatt nccatattnng acatcacgnt caatgcgggn 780
ncctaattgtt cgggccana cggctgnnct gg 812

<210> 124
<211> 809
<212> DNA
<213> Pseudomonas aeruginosa

<220>
 <221> misc_feature
 <222> 9, 330, 331, 332, 620, 698, 715, 751, 759, 769, 780, 791, 806, 807
 <223> n = A,T,C or G

 <400> 124
 gatgaaggca cccgagcgga acatccacct cacgaagtgc ctgctcaacc actcgaatat 60
 ccagaccacc atgagctaca tcgaggccga ctacgaccac atgcgtgccg tgctgcatgc 120
 cagaagcctg gcccaaggag cgctggagaa cgtcaggaag gtggattaca gcggctcccc 180
 gcaggcctct gccaaaccga agccatgcgg gcaacctctc gctcgaatgg gtgaagtacc 240
 gccgcccggag gccaggacag aacctgcaga accaaggag cacacaccag ggacaggcat 300
 tcagggaggt ccaaccgtgc gggaagaagn ncgctaccac agccacctga caccttcgat 360
 caaagcgtgc tgttcaactct gatggctcaa cacttatcga accgtgccgc ctccggcatcc 420
 gcagctcccc ctgcaacaag cggatctggg ggatggggat ctaccgcccg aagcagtctc 480
 gcctagcgat accggtactg aaggggccggc taccggacga aaggtagccg cgcctcccag 540
 cagttcgcta ggctgttagg aaaaatctgg aattaccgag agcgcctgga ttccagcgcc 600
 ggcatgctgg cagggccnc gcaatttcaa ggcnгааacc gcagtaccct ctgtaatcgc 660
 tgattacgtc gagggcacat tgctacgcct gcagaanggt ttcagagcct ngaaaacaga 720
 aaagnccacc naaataggcg ggctatttcc atatttgaca tcccgtcaat gcggggccct 780
 aatggttcgg gcccanacgg cttgcttgg 809

<210> 125
 <211> 828
 <212> DNA
 <213> Pseudomonas aeruginosa

<220>
 <221> misc_feature
 <222> 788
 <223> n = A,T,C or G

 <400> 125
 ttccggcac accctggcca ccgacttgat gaaggcacc gagcggaaca ttcacctcac 60
 gaagtgcctg ctcaaccact cgaatatcca gaccacgatg agctacatcg aggccgacta 120
 cgatcacatg cgtgccgtgc tgcatgctag aagcctggcc caaggcgcg caggagaatgt 180
 caggaaggtg gattacagcg gctccccgca agcctctgcc aaaccgaagc catgcgggca 240
 acctctcgct cgagtgaagt aagcgccgcc accggaggcc aggacagagc ctgcagaacc 300
 aaggggagcac acgccaggga caggcattca gggaggtcca accgcgtggg aagcagatgc 360
 gctaccacag ccacctgaca ccttcgaacc aagcgtgctg ttcactctga tggctcaaaa 420
 cttatcgaac cgtgccgcct cggcatccgc ggctcccgt gcaacaagcg gatcaggcgg 480
 atggggatct gccgcccga gcaatctcgc ctacgatac cggtagtgag ggccggctac 540
 cggacgaaag gtagccgtgc cttccagcag atcggttaggc ctgtaggaaa aatctggaat 600
 taccgagagc gcctggattc cagcgccggc atgctggcag agccagcgca atttcaaggc 660
 caataccaca gtacctctg taatcgctga ttacgtcggg ggccgattgc tacgcctgca 720
 gaatggtttc agggccttag aaacagaaaa gccacctag aaaggcgggc tattccatat 780
 tgacatcacg tcaatgcggg cctaattgtt gccccagacg gctgctag 828

<210> 126
 <211> 800
 <212> DNA
 <213> Pseudomonas aeruginosa

<220>
 <221> misc_feature
 <222> 711, 790, 795
 <223> n = A,T,C or G

<400> 126

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gatgaaggac ccgagcggaa catccacctc acgaagtgcc tgctcaacca ctcgaatata 60
cagaccacga tgagctacat cgaggccgac tacgatcaca tgcgtgccgt gctgcatgct 120
agaagcctgg cccaaggcgc gctggagaat gtcaggaagg tggattacag cggctccccg 180
caagcctctg ccaaaccgaa accatgcggg caacctctcg ctcgagttag tgaagcgccg 240
ccaccggaag ccaggacaga gcctgcagaa ccaagggagc acacaccagg gacaggcatt 300
cagggaggtc caaccgagt ggaagcagaa gcgctaccac agccacctga caccttcgag 360
caaagcgtgc tgttcactct gatggctcaa cacttatcga accgtgccgc cagcacatct 420
gcggctcccg ccgcaaccag cggatcttgt agatggggat ctgccgcccg aagcagcctc 480
gcctagcgat accggtactg aggggcccgc taccagacga aaggtagccg cgcctcccag 540
cagatcgctg ggcctgtagg aaaaatctgg aattaccgag agcgcctgga ttccagcgcc 600
ggcatgctgg cagagccccg caatttcacg gcaaaaccgc agtaccctct gtaatcgctg 660
attacgtcgg gggcacattg ctacgcctgc agaatggttt cagagcctta naaacagaaa 720
agcccaccta gataggcggg ctattccata ttgacatcac ggtcaatgcg gggctaattg 780
tcgggcccac acggnatgcaa 800

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<210> 127

<211> 501

<212> PRT

<213> Pseudomonas aeruginosa

<400> 127

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Val Ala Leu Thr Gly Asn Pro Leu Leu Lys Leu Leu Val Val Pro Val
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Val Ile Gly Ala Ile Leu Ile Gly Val Ser Met Met Gly Lys Lys Glu
20     25     30
Ser Ala Gln Ser Gln Gly Ala Ala Thr Pro Thr Val Thr Ser Glu Glu
35     40     45
Ala Ala Thr Leu Gly Ile Asp Gly Asp Thr Pro Ala Asp Thr Leu Arg
50     55     60
Thr Ile Val Ala Glu Ser Arg Gln Leu Lys Asp Gln Ile Ser Lys Val
65     70     75     80
Ile Gln Glu Asn Asp Ser Leu Lys Ala Ala Asn Glu Asn Leu Gln Gly
85     90     95
Arg Leu Arg Asn Ile Asp Gln Asn Ile Glu Gln Lys Leu Asn Asn Thr
100    105    110
Ala Gln Glu Leu Gln Gln Gln Gln Glu Asn Arg Ser Gln Thr Ile Leu
115    120    125
Asp Gln Val Gln Lys Arg Leu Glu Asn Leu Thr His Ile Pro Glu Ala
130    135    140
Gly Asp Thr Asp Leu Pro Val Gly Phe Gly Val Arg Pro Lys Asp Gly
145    150    155    160
Gln His Phe Gln Gly Ala Gly Ser Ser Ser Ser Asp Ile Val Trp Ile
165    170    175
Glu Pro Gln Asp Ala Arg Ala Val Asp Ala Asn Gly Gln Pro Leu Ala
180    185    190
Ala Gly Ser Thr Thr Gln Pro Ser Gly Phe Ser Phe Pro Thr Ser Phe
195    200    205
Gly Asn Ala Val Asp Arg Gly Gln Asn Ala Leu Glu Arg Ile Asp Asp
210    215    220
Gly Leu His Pro Val Gly Gln Gln Arg Ser Asp Leu Glu Asn Arg Lys
225    230    235    240
Leu Val Arg Lys Thr Tyr Thr Leu Pro Gln Asn Ser Thr Leu Met Gly
245    250    255
Ser Val Ala Met Phe Ala Leu Ile Gly Arg Val Pro Val Asp Gly Thr
260    265    270
Val Asn Asp Pro Tyr Pro Phe Lys Ile Leu Ile Gly Pro Asp Asn Leu
275    280    285
Thr Ala Asn Gly Ile Glu Leu Pro Asp Val Ala Gly Ala Val Ala Ser
290    295    300

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Gly	Thr	Ala	Ser	Gly	Asp	Trp	Thr	Leu	Ser	Cys	Val	Arg	Gly	Gln	Ile
305					310					315					320
Arg	Ser	Leu	Thr	Phe	Val	Phe	Asn	Asp	Gly	Thr	Val	Arg	Thr	Phe	Pro
				325					330					335	
Ala	Pro	Ala	Glu	Glu	Val	Asn	Asp	Asn	Gln	Ser	Asn	Asn	Asn	Gln	Thr
			340					345					350		
Ala	Ser	Ala	Asp	Gln	Lys	Thr	Ile	Gln	Gly	Gly	Leu	Gly	Trp	Ile	Ser
		355					360					365			
Asp	Pro	Tyr	Gly	Ile	Pro	Cys	Ile	Ala	Gly	Asp	Arg	Arg	Ser	Asn	Ala
	370					375					380				
Lys	Glu	Tyr	Leu	Gly	Asn	Gln	Ser	Leu	Leu	Thr	Ala	Ala	Gly	Ala	Gly
385					390					395					400
Ile	Ala	Lys	Leu	Leu	Asp	Ala	Asp	Glu	Asn	Asn	Thr	Ser	Thr	Val	Phe
			405						410					415	
Ser	Gly	Asn	Gly	Thr	Ser	Phe	Gly	Thr	Thr	Gly	Thr	Asn	Ser	Asn	Ser
		420					425					430			
Ala	Leu	Asn	Ser	Ile	Leu	Ser	Gly	Gly	Val	Ser	Asp	Ile	Arg	Gln	Trp
		435					440					445			
Met	Asn	Lys	Leu	Tyr	Gly	Glu	Ala	Phe	Ala	Ala	Val	Tyr	Val	Gln	Pro
	450					455					460				
Gly	Ala	Arg	Val	Ala	Val	His	Leu	Asp	Gln	Gln	Leu	Ala	Ile	Asp	Tyr
465					470				475						480
Glu	Leu	Lys	Gly	Arg	Lys	Val	Asp	Tyr	Ser	Ser	Gly	Ala	Ala	His	Ala
			485					490						495	
Thr	Ala	Asp	Leu	Asp											
			500												

<210> 128
 <211> 294
 <212> PRT
 <213> Pseudomonas aeruginosa

<220>
 <221> misc_feature
 <222> 711, 790, 795
 <223> n = A,T,C or G

<400> 128
Met Ile Arg Lys Ser Thr Gly Ser Leu Leu Leu Met Leu Ala Leu Pro
1 5 10 15
Thr Leu Ala His Ala Val Glu Ile Leu Arg Trp Glu Arg Ile Pro Leu
20 25 30
Ala Ile Pro Leu Thr Val Gly Gln Glu Arg Ile Val Phe Val Asp Arg
35 40 45
Asn Val Arg Val Gly Val Pro Arg Asp Leu Gln Gly Lys Leu Arg Val
50 55 60
Gln Ser Thr Gly Gly Ala Leu Tyr Leu Leu Ala Asn Glu Pro Ile Pro
65 70 75 80
Pro Ala Arg Leu Arg Leu Gln Asp Ala Thr Asn Gly Glu Gln Met Leu
85 90 95
Ile Asp Ile Ala Ala Thr Glu Ala Thr Ala Asp Gln Gln Pro Arg Glu
100 105 110
Pro Val Arg Ile Val Ala Gly Glu Pro Val Asp Pro His Tyr Gly Gln
115 120 125
Ser Arg Glu Ala Gln Pro Ser Ala Ala Ala Lys Gln Thr Glu His Ala
130 135 140
Glu Ala Pro Lys Ala Val Pro Arg Glu Thr Pro Val Pro Val Val Leu
145 150 155 160

Thr	Arg	Tyr	Ala	Ala	Gln	Met	Leu	Tyr	Ala	Pro	Leu	Arg	Thr	Val	Glu
				165					170					175	
Pro	Val	Asp	Gly	Val	Gly	Gln	Val	Arg	Val	Lys	Arg	Gln	Leu	Asp	Leu
			180					185					190		
Thr	Thr	Leu	Leu	Pro	Ser	Leu	Pro	Ile	Thr	Ala	Thr	Ala	Leu	Gly	Ala
		195					200					205			
Trp	Arg	Leu	Asp	Asp	Tyr	Tyr	Ile	Thr	Ala	Val	Lys	Leu	Gln	Asn	Ala
	210					215					220				
Ser	Ala	Gln	His	Leu	Ala	Leu	Asp	Pro	Arg	Asp	Leu	Met	Gly	Asn	Phe
225					230					235					240
Val	Ala	Ala	Thr	Phe	Gln	His	Pro	Tyr	Leu	Gly	Pro	Arg	Gly	Asp	Ala
				245					250					255	
Ser	Asp	Thr	Thr	Thr	Val	Tyr	Leu	Val	Thr	Arg	Gly	Arg	Gly	Leu	Ala
		260					265						270		
Asp	Ala	Leu	Leu	Pro	Ser	Ser	Ile	Ser	Gln	Ile	Asp	Pro	Lys	Gly	Gly
		275					280					285			
Arg	Arg	Gly	Ala	Asp	Arg										
		290													

<210> 129
 <211> 219
 <212> PRT
 <213> Pseudomonas aeruginosa

<400>	129														
Met	Ser	Phe	Arg	Lys	His	Thr	Ala	Gln	Gln	Gln	Ala	His	Ile	Asn	Thr
1				5					10					15	
Phe	Arg	Phe	Ile	Thr	Gly	Phe	Leu	Cys	Met	Val	Ile	Val	Val	Leu	Ala
			20					25					30		
Tyr	Cys	Val	Trp	Glu	Ala	Arg	Lys	Asp	Leu	Trp	Ile	His	Ile	Pro	Pro
	35						40					45			
Asp	Leu	Arg	Ser	Gly	Ser	Thr	Arg	Leu	Trp	Trp	Asp	Ile	Pro	Pro	Glu
	50					55					60				
Ser	Val	Tyr	Ala	Phe	Gly	Leu	Tyr	Ile	Phe	Gln	Gln	Val	Gln	Arg	Trp
65					70					75					80
Pro	Lys	Asp	Gly	Glu	Val	Asp	Tyr	Lys	Gly	Asn	Leu	Phe	Arg	Tyr	Ala
				85					90					95	
Ala	Tyr	Leu	Thr	Pro	Ser	Cys	Lys	Val	Phe	Leu	Glu	Lys	Asp	Phe	Glu
			100					105					110		
Phe	Arg	Arg	Asn	Ala	Gly	Glu	Leu	Arg	Gly	Arg	Glu	Arg	Thr	Thr	Ser
		115					120					125			
Glu	Ile	Pro	Gly	Arg	Gly	Ile	Gly	Glu	Ser	Asn	Gly	Arg	Val	Ile	Gln
	130					135					140				
His	Ser	Ile	Asn	Asp	Trp	Thr	Val	Asn	Leu	Asp	Met	Asp	Ser	Thr	Glu
145					150					155					160
Tyr	Tyr	Ala	Gly	Glu	Lys	Ile	Lys	Arg	Ala	Leu	Ala	Arg	Tyr	Pro	Leu
				165					170					175	
His	Val	Ile	Arg	Ala	Asp	Val	Asp	Pro	Glu	Thr	Asn	Pro	Phe	Gly	Leu
			180					185					190		
Gln	Trp	Asp	Cys	Tyr	Ser	Asp	Thr	Pro	Gln	Arg	Ile	Glu	Leu	Glu	Glu
		195					200					205			
Pro	Ala	Ala	Pro	Thr	Lys	Arg	Glu	Gly	Gly	Leu					
		210					215								

<210> 130
 <211> 128
 <212> PRT

<213> Pseudomonas aeruginosa

<400> 130

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Met Pro Glu Glu His Leu Phe Gln Asp Gly Thr Leu Ser Phe Leu Pro
 1          5          10          15
Thr Arg Leu Asn Arg Gln Pro Val Val Ile Gly Gly Leu Thr Ala Asp
          20          25          30
Glu Met Trp Ile Thr Val Phe Thr Ser Gly Ala Ala Gly Phe Val Leu
          35          40          45
Gly Ile Pro Ala Ala Leu Val Ala Gly Asn Ala Ala Cys Ile Pro Leu
          50          55          60
Gly Ala Leu Leu Val Gly Ala Leu Gly Leu Gly Ile Gly Ser Arg Val
65          70          75          80
Leu Arg Arg Met Lys Arg Gly Arg Pro Asp Thr Trp Phe Tyr Arg Gln
          85          90          95
Val Glu Met Ala Leu Ser Leu Arg Phe Pro Val Phe Gly Asn Arg Arg
          100          105          110
Leu Val Thr Arg Ser Gly Ala Trp Thr Ser Arg Arg Thr Glu Ser Pro
          115          120          125
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<210> 131

<211> 118

<212> PRT

<213> Pseudomonas aeruginosa

<400> 131

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Met Leu Lys Leu Thr Leu Gln Lys Leu Ser Ala Leu Cys Gln Ser Leu
 1          5          10          15
Ala Ala Ile Thr Leu Ala Leu Pro Gly Ile Ala Leu Ala Ala Leu Pro
          20          25          30
Lys Pro Glu Ala Pro Ser Arg Gly Glu Gly Ser Gly Ile Met Gln Thr
          35          40          45
Ile Gln Asn Phe Gly Tyr Asp Gly Ala Met Leu Leu Ala Leu Leu Ile
          50          55          60
Cys Ala Ala Val Phe Leu Gly Val Ala Trp His Thr Tyr Gly Thr Tyr
65          70          75          80
His Ala Ile His Asp Gly Lys Lys Lys Trp Ser Asp Leu Gly Ala Gly
          85          90          95
Val Ala Val Gly Val Gly Leu Leu Ile Leu Ile Ile Tyr Leu Val Thr
          100          105          110
Lys Ala Thr Ala Ile Met
          115
```

<210> 132

<211> 123

<212> PRT

<213> Pseudomonas aeruginosa

<400> 132

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Met Ser Met Ser Gly Ala Gln Thr Ser Ala Phe Gln Ala Ala Ala Gly
 1          5          10          15
Phe Pro Pro Ser Ala Gly Glu Gly Leu Phe Ile Gly Ala Ala Met Thr
          20          25          30
Phe Leu Leu Leu Trp Ser Ala Trp Ala Met Tyr Ser Thr Trp Arg Gly
          35          40          45
Trp Ala Thr Asn Asn Leu Arg Gln Arg His Arg Trp Arg Phe Arg Asp
          50          55          60
```

Pro Gly Ser Trp Ser Ser Ser Ala Ser Pro Leu Ser Ser Ser Ser Ala
65 70 75 80
Asp Pro Tyr Gly Asp Thr His Ala Glu Thr His Pro Pro Glu Thr Val
85 90 95
Arg Pro Leu Pro Glu Pro Gly Arg His His Phe Gly Ala Pro Arg Tyr
100 105 110
Arg Leu Gly Cys Thr Pro Gln Thr Arg Gly Thr
115 120

<210> 133
<211> 119
<212> PRT
<213> Pseudomonas aeruginosa

<400> 133
Leu Ile Cys Thr Arg Phe Ala Val Asn Thr Pro His Pro Ser Leu Arg
1 5 10 15
Arg Ser Cys Leu Ala Val Leu Ala Cys Ser Ala Leu Val Ala Gln Gly
20 25 30
Ala Phe Ala Ala Ser Ala Ser Glu Gln Ala Asn Leu Glu Val Met Ile
35 40 45
Arg Gln Leu Asn Ala Leu Glu Asp Thr Ala Arg Arg Ser Ala Gln Gly
50 55 60
Ala Asp Glu Pro Gly Gln Arg Phe Tyr Phe Asp Tyr Pro Arg Leu Ala
65 70 75 80
Ala Asp Leu Gln Arg Ile Arg Gln Gly Leu Gln Asp Tyr Met Thr Pro
85 90 95
Ser Arg Ala Gln Pro Arg Asp Pro Ser Asp Leu Ser Gly Asn Tyr Thr
100 105 110
Leu Arg Gly Gly Pro Met Pro
115

<210> 134
<211> 101
<212> PRT
<213> Pseudomonas aeruginosa

<400> 134
Met Ser Ile Lys Gln Pro Phe Glu Tyr His Val Glu Asn Ile Val Ile
1 5 10 15
Pro Tyr Lys Thr Leu Thr Lys Gly Val Ala Met Phe Lys His Lys Glu
20 25 30
Asp Thr Leu Glu Pro Asp Asp His Ala Leu Leu Asn Pro Leu Arg Trp
35 40 45
Ala Glu Val Val Arg Leu Gly Gln Glu Gly Trp Glu Leu Val Ser Val
50 55 60
Gln Pro Leu Met Arg Gly Val Thr Glu Ile Gly Asn Gln Asn Ala Gln
65 70 75 80
Gly Trp Ala Trp Gly Val Ala Leu Pro Val Ser Tyr Leu Leu Phe Phe
85 90 95
Lys Arg Ala Thr Ser
100

<210> 135
<211> 103
<212> PRT

<213> Pseudomonas aeruginosa

<400> 135

Met Leu Arg Asn Ile Ser Ile Gly Val Leu Leu Ala Met Ala Ala Met
1 5 10 15
Leu Gly Ser Tyr Gly Val Ala Ala Thr Leu Arg Cys Gly Ser Ala
20 25 30
Ile Val Ser Glu Gly Asp Leu Ile Asp Asp Val Leu Arg Lys Cys Gly
35 40 45
Asn Pro Asp Ser Arg Lys Ile Glu Gly Pro Ala Val Asp Gly Ser Gly
50 55 60
Tyr Ile Val Arg Gly Ala Ala Thr Val Glu Asn Trp Val Tyr Gly Pro
65 70 75 80
Arg Asn Gly Trp Tyr Gln Lys Leu Arg Phe Val Asp Gly Arg Leu Val
85 90 95
Gln Ile Lys Gly Ser Met Asp
100

<210> 136

<211> 385

<212> PRT

<213> Pseudomonas aeruginosa

<400> 136

Met Lys Leu Ile Leu Asp Phe Asp Gly Arg Leu Leu Asn Pro Ser Asn
1 5 10 15
Met Leu Glu Ala Leu Ser Lys Ala Gly Lys Asn Thr Ser Ile Ser Ile
20 25 30
Ser Asn Ala Gln Ala Leu Asn Ile Glu Thr Leu Leu Lys Ala Thr Thr
35 40 45
Thr Ala Glu Asn Thr Lys Asn Leu Ser Thr Thr Phe Asn Gly Ala Glu
50 55 60
Leu Thr Ala Asn Asn Leu Gln Gln Val Ile Asn Ser Ala Gly Ser Leu
65 70 75 80
Thr Arg Val Ser Thr Ile Ala Ala Gln Ala Ile Asn Ile Asn Thr Leu
85 90 95
Leu Ser Ala Ile Ser Thr Ala Gly Asn Ser Lys Asn Phe Ser Ala Glu
100 105 110
Phe Asn Gly Ala Gln Leu Ser Ser Asp Asn Leu Leu Arg Ala Val Asn
115 120 125
Ala Ala Gly Thr Asn Thr Ser Ile Ser Val Asn Thr Ala Gln Ala Ala
130 135 140
Asn Ile Thr Ala Leu Leu Gln Thr Ile His Ala Ala Gly Asp Thr Lys
145 150 155 160
Thr Phe Ser Ala Glu Phe Asn Gly Ala Gln Leu Thr Ser Asn Asn Ile
165 170 175
Gln Gln Ala Leu Asp Ala Ala Gly Thr Arg Thr Ser Ile Ser Val Asn
180 185 190
Thr Ala Gln Ala Val Asn Ile Ser Thr Leu Leu Ala Leu Ile Asn Ser
195 200 205
Ala Lys Asp Thr Lys Lys Phe Ser Ala Asp Phe Asn Gly Ala Gln Leu
210 215 220
Thr Ala Asp Asn Leu Gln Gln Ala Ile Ser Ala Ala Ala Ser Gly Thr
225 230 235 240
Asn Ile Ser Val Asn Thr Ala Gln Ala Ala Asn Ile Ser Thr Leu Leu
245 250 255
Gln Ala Ile Asn Ile Ala Gly Asn Thr Lys Lys Phe Ser Ala Asn Phe
260 265 270

Asn	Gly	Ala	Gln	Leu	Thr	Ser	Asn	Asn	Ile	Gln	Gln	Ala	Leu	Arg	Ala		
		275					280					285					
Thr	Gly	Ser	Asn	Thr	Ser	Ile	Ser	Met	Asn	Ser	Ala	Gln	Ser	Ala	Asn		
	290					295					300						
Gln	Ser	Thr	Leu	Leu	Glu	Leu	Leu	Asp	Ile	Ala	Ser	Ser	Ser	Lys	Gln		
305					310				315						320		
Phe	Gln	Ala	Asn	Tyr	Asn	Gly	Gly	Met	Ser	Asn	Pro	Asn	Asn	Leu	Gln		
			325					330						335			
Gln	Ile	Val	Phe	Pro	Cys	Arg	Arg	Gln	Tyr	Asn	Arg	Val	Tyr	Phe	Arg		
		340					345					350					
Arg	Thr	Arg	Pro	Thr	Asn	Arg	Lys	Tyr	Pro	Tyr	Pro	Tyr	Ile	Ile	Cys		
	355					360					365						
Arg	Met	Arg	Leu	Ile	Ala	Val	Asp	Glu	Asn	Thr	Pro	Ser	Thr	Ala	Ile		
	370					375					380						
Pro																	
385																	

<210> 137
 <211> 493
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 137																	
Val	Gln	Trp	Thr	His	Glu	Gln	Ser	Pro	Ile	Ile	Gln	Ser	Lys	Ala	Pro		
1				5					10					15			
Lys	Ile	Leu	Val	Arg	Ala	Phe	Ala	Gly	Thr	Gly	Lys	Thr	Thr	Thr	Leu		
		20					25					30					
Val	Gly	Phe	Ala	Arg	Ser	Asn	Pro	Thr	Leu	Arg	Ile	Leu	Tyr	Leu	Cys		
	35					40					45						
Tyr	Asn	Ser	Ser	Val	Glu	Lys	Ala	Ala	Lys	Gly	Lys	Phe	Pro	Arg	Asn		
	50				55					60							
Val	Val	Cys	Lys	Thr	Ala	His	Ser	Leu	Ala	His	Ala	Val	Tyr	Gly	Ile		
65				70					75						80		
Gln	Tyr	Ala	His	Lys	Lys	Thr	Lys	Asn	Leu	Arg	Leu	Thr	Asp	Ile	Ala		
		85					90						95				
Arg	Gly	Leu	Asp	Thr	Gln	Asp	Trp	Glu	Leu	Val	Arg	Asp	Val	Leu	Ala		
	100					105						110					
Thr	Leu	Asn	Asn	Tyr	Met	Ala	Ser	Ala	Asp	Ala	Glu	Leu	Gly	Arg	Pro		
	115					120					125						
His	Phe	Pro	Arg	Phe	Arg	Asp	Lys	Ala	Phe	Leu	Thr	Ser	Ala	Gln	Glu		
	130				135					140							
Arg	Phe	Leu	Lys	Gln	Gly	Leu	Asp	Met	Ala	Arg	Val	Val	Trp	Arg	Arg		
145			150					155						160			
Met	Val	Asp	Leu	Gln	Asp	Thr	Gly	Met	Leu	Met	Pro	Leu	Asp	Gly	Tyr		
		165					170					175					
Leu	Lys	Leu	Tyr	Gln	Leu	Ser	Lys	Pro	Asp	Leu	Ser	Gln	Arg	Phe	Asp		
	180					185						190					
Cys	Met	Leu	Leu	Asp	Glu	Gly	Gln	Asp	Ile	Asn	Pro	Val	Ile	Ala	Asp		
	195					200					205						
Ile	Ala	His	Trp	Gln	Arg	Ile	Arg	Met	Ala	Ile	Val	Gly	Asp	Pro	His		
	210				215					220							
Gln	Gln	Leu	Tyr	Arg	Phe	Arg	Gly	Ala	Glu	Asp	Ala	Leu	Asn	Ser	Asp		
225				230				235						240			
Trp	Met	Ala	Gly	Ala	Glu	Glu	His	Tyr	Leu	Thr	Gln	Ser	Trp	Arg	Phe		
		245					250						255				
Gly	Pro	Ala	Ile	Ala	His	Val	Ala	Asn	Ile	Ile	Leu	Ser	Tyr	Lys	Gly		
	260					265						270					
Glu	Thr	Arg	Lys	Leu	Gln	Gly	Leu	Gly	Pro	Gln	Thr	Leu	Val	Lys	Lys		

	275					280					285				
Ser	Leu	Pro	Pro	Asp	Leu	Pro	His	Arg	Thr	Phe	Ile	His	Arg	Thr	Val
	290					295					300				
Ile	Gly	Val	Ile	Glu	Asn	Ala	Leu	Gln	Leu	Val	Arg	Asn	His	Pro	Glu
305					310					315					320
Pro	Lys	Phe	His	Trp	Val	Gly	Gly	Ile	Asp	Ser	Tyr	Ser	Leu	Arg	Asp
				325					330					335	
Leu	Glu	Asp	Leu	Tyr	Ala	Phe	Ser	Arg	Gly	Leu	Arg	Gln	Asn	Val	Gln
			340					345					350		
Asn	Lys	Lys	Leu	Leu	Arg	Asp	Tyr	Arg	Asp	Tyr	Thr	Gln	Tyr	Val	Glu
		355				360						365			
Ile	Ala	Glu	Ile	Ser	Gln	Asp	Gly	Glu	Met	Leu	Arg	Ser	Ile	Lys	Ile
	370					375					380				
Ile	Ser	Thr	Tyr	Pro	Asp	Leu	Pro	Ala	Arg	Ile	Leu	Glu	Leu	Arg	Ser
385					390					395					400
Leu	Thr	Leu	Asp	Asp	Glu	Leu	Asp	Ala	Thr	Ile	Thr	Leu	Thr	Thr	Ala
				405					410					415	
His	Lys	Ala	Lys	Gly	Leu	Glu	Trp	Asp	Phe	Val	Cys	Leu	Tyr	Asp	Asp
			420					425					430		
Phe	Asn	Ala	Asp	Pro	Leu	Ala	Pro	Asp	Thr	Asp	Pro	Gly	Lys	Arg	Asp
		435					440					445			
Asp	Glu	Leu	Asn	Leu	Ile	Tyr	Val	Ala	Val	Thr	Arg	Ala	Met	Lys	Ile
	450				455						460				
Leu	Ala	Ile	Asn	Ser	Leu	Val	Leu	Ser	Ile	Met	Gln	Arg	Tyr	Val	Asp
465					470					475					480
Asp	Arg	Lys	Leu	Lys	Glu	Gln	Ile	Ala	Ser	Cys	Lys	Lys			
				485					490						

<210> 138
 <211> 216
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 138															
Met	Phe	Gly	Ser	Leu	Ile	Gly	Ala	Ile	Ile	Val	Glu	Trp	Val	Cys	Leu
1				5				10						15	
Tyr	Phe	Phe	Trp	Pro	Asp	Ala	Gly	Trp	Lys	His	Ala	Gln	Ala	Met	Phe
			20					25					30		
Glu	Tyr	Glu	Leu	Ser	Trp	Leu	Ser	Gln	Gly	Leu	Leu	His	Ser	Val	Val
		35				40						45			
Val	Gln	Glu	Pro	Gly	Arg	Thr	Ala	Thr	Trp	Leu	Ala	Gln	Leu	Ala	Tyr
	50					55					60				
Asp	Trp	Leu	Phe	Val	Lys	Thr	Gly	Met	Val	Asp	Trp	Met	Thr	Asn	Met
65					70					75					80
Thr	Thr	Ile	Ala	Gln	Ala	Arg	Pro	Arg	Ser	Pro	Leu	Asp	Val	Arg	Tyr
			85						90					95	
Leu	Thr	Ala	His	Gly	Val	Ser	Thr	Leu	Gln	Asn	Tyr	Gly	Leu	Ala	Ala
			100					105					110		
Leu	Tyr	Thr	Val	Leu	Thr	Phe	Val	Val	Arg	Leu	Val	Ile	Leu	Val	Met
		115					120					125			
Thr	Ile	Pro	Leu	Phe	Val	Met	Ala	Ala	Phe	Thr	Gly	Leu	Val	Asp	Gly
	130					135					140				
Leu	Val	Arg	Arg	Asp	Leu	Arg	Lys	Phe	Gly	Ala	Gly	Arg	Glu	Ser	Ser
145					150					155					160
Tyr	Leu	Tyr	His	Lys	Ala	Arg	Gly	Ser	Ile	Ile	Pro	Leu	Ala	Val	Val
				165					170					175	
Pro	Trp	Thr	Leu	Tyr	Leu	Ala	Ile	Pro	Ile	Ser	Ile	Asn	Pro	Leu	Leu
			180					185					190		

Ile	Leu	Leu	Pro	Cys	Ala	Ala	Leu	Leu	Gly	Val	Ala	Val	Cys	Ile	Thr
	195						200					205			
Ala	Ser	Thr	Phe	Lys	Lys	Tyr	Leu								
	210					215									

<210> 139
 <211> 931
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 139

Met	Lys	Leu	Lys	Asn	Phe	Leu	Gln	Pro	Phe	Asp	Ser	Gly	Phe	Ser	Thr
1				5					10					15	
Pro	Ser	Ala	Ala	Leu	Lys	Leu	Leu	Arg	Met	Leu	Gly	Gly	Ala	Leu	Met
		20						25					30		
Leu	Cys	Val	Leu	Cys	Ser	Leu	Ile	Phe	Ser	Val	Ser	Met	Val	Leu	Asn
	35						40					45			
His	Gln	Val	Ser	Leu	Ser	Arg	Gln	Ala	Met	Asn	Val	Ala	Met	Tyr	Glu
	50					55				60					
Ala	Gln	Leu	Tyr	Phe	Glu	Gln	Arg	Glu	Ala	Leu	Leu	Asn	His	Leu	Ser
65					70				75					80	
Gly	Asn	Val	Val	Pro	Leu	Ala	Ala	Gly	Arg	Ala	Leu	Val	Asn	Glu	Ala
				85				90					95		
Pro	Asn	Asn	Val	Ser	Ile	Leu	Pro	Leu	Ser	Asp	Gly	Gly	Arg	Gly	Leu
			100				105						110		
Leu	Leu	Thr	Ala	Arg	Thr	Leu	Gly	Asp	Leu	Arg	Glu	Lys	Arg	Leu	Ala
		115				120						125			
Leu	Met	Tyr	Leu	Val	Asp	Thr	Asp	Lys	Gly	Pro	Leu	Val	Tyr	Arg	Leu
	130					135					140				
Thr	Ala	Asp	Gly	Arg	Pro	Ser	Ala	Ala	Ile	Ser	Ser	Thr	Ile	Thr	Lys
145					150				155						160
Glu	Val	Tyr	Arg	Ala	Leu	Leu	Ala	Thr	Pro	Ser	Ala	Pro	Val	His	Trp
				165				170						175	
Val	Thr	Asp	Gly	Gly	Thr	Pro	Gln	Arg	Leu	Tyr	Leu	Phe	Glu	Ser	Leu
			180				185						190		
Gly	Asp	Glu	Pro	Gly	Glu	Gly	Trp	Leu	Gly	Leu	Glu	Ile	Leu	Gly	Glu
	195						200					205			
Asp	Leu	Asp	Ser	Met	Leu	Arg	Asn	Asp	Ala	Gly	Asn	Tyr	Met	Leu	
	210				215					220					
Leu	Asp	Gln	His	Gly	Gln	Val	Val	Leu	Ala	Thr	Asp	Ala	Glu	Ala	Leu
225					230				235						240
Gly	Ser	Gly	Ala	Ser	Arg	Thr	Leu	Leu	Arg	Gly	Asp	Gly	Phe	Gly	Phe
			245						250					255	
Ile	Gly	Ala	Gly	Pro	Leu	Pro	Gln	His	Met	Val	Leu	Phe	Gln	His	Val
		260					265						270		
Gly	Ser	Ser	Ser	Trp	Asp	Leu	Ile	Tyr	His	Ile	Gly	Ile	Gly	Arg	Leu
	275					280						285			
Leu	Leu	Ala	Leu	Trp	Leu	Pro	Leu	Leu	Ala	Ser	Ala	Leu	Ala	Leu	
	290					295				300					
Ala	Val	Gly	Ile	Leu	Leu	His	Trp	Leu	Val	Arg	Ser	Ile	Glu	Arg	Arg
305					310				315						320
Leu	Ile	Glu	Pro	Ala	Lys	Arg	Arg	Leu	Glu	Ala	Leu	Lys	Glu	Ser	Glu
				325					330					335	
Ala	Phe	Ser	Arg	Ala	Val	Ile	Gln	Ala	Ala	Pro	Val	Ala	Leu	Cys	Val
		340					345						350		
Leu	Arg	Arg	Ala	Asp	Ala	Ala	Val	Val	Leu	Glu	Asn	Pro	Gln	Ala	Arg
	355					360						365			
Gln	Trp	Leu	Gly	Asp	Ser	Glu	Ala	Ile	Ala	His	Asp	Ala	Pro	Arg	Trp

370	Ile	Ser	Gln	Ala	Phe	Ala	Gly	Gly	Val	Lys	Cys	Ser	Gly	Glu	Glu	Leu
385	Glu	Thr	Glu	Ala	Gly	Leu	His	Leu	His	Leu	Asn	Tyr	Thr	Pro	Thr	Arg
				405						410					415	
	Tyr	Asn	Gly	Glu	Asp	Val	Leu	Phe	Cys	Ala	Phe	Ser	Glu	Ile	Ser	Ala
				420					425					430		
	Arg	Lys	Arg	Met	Glu	Ala	Glu	Leu	Ala	Arg	Ala	Lys	Ser	Leu	Ala	Asp
				435				440					445			
	Ala	Ala	Asn	Glu	Ala	Lys	Thr	Leu	Phe	Leu	Ala	Thr	Met	Ser	His	Glu
				450			455					460				
	Ile	Arg	Thr	Pro	Leu	Tyr	Gly	Met	Leu	Gly	Thr	Leu	Glu	Leu	Leu	Gly
465						470					475					480
	Arg	Thr	Glu	Leu	Ser	Arg	Gln	Gln	Ala	Gly	Tyr	Leu	Lys	Ala	Ile	Gln
				485						490					495	
	His	Ser	Ser	Ser	Thr	Leu	Leu	Gln	Leu	Ile	Ser	Asp	Val	Leu	Asp	Val
				500					505					510		
	Ser	Lys	Ile	Glu	Ala	Gly	Gln	Leu	Asp	Leu	Glu	Cys	Val	Glu	Phe	Ser
				515				520					525			
	Pro	Leu	Glu	Leu	Thr	Glu	Glu	Val	Val	Gln	Ser	Phe	Thr	Gly	Ala	Ala
				530			535					540				
	Gln	Ala	Lys	Gly	Leu	Gln	Leu	Tyr	Thr	Cys	Leu	Ser	Ala	Glu	Leu	Pro
545						550					555					560
	Leu	Arg	Met	Arg	Gly	Ala	Ala	Ala	Ser	Ile	Arg	Gln	Ile	Leu	Asn	Asn
				565						570					575	
	Leu	Leu	Ser	Asn	Ala	Val	Lys	Phe	Thr	Asp	Asn	Gly	Tyr	Val	Asn	Val
				580				585						590		
	His	Leu	Lys	Ala	Ser	Val	Val	Asp	Ala	Glu	Cys	Val	Met	Leu	Thr	Trp
				595				600					605			
	Gln	Val	Asn	Asp	Thr	Gly	Met	Gly	Ile	Asn	Val	Glu	Asp	Gln	Pro	Arg
				610			615					620				
	Leu	Phe	Glu	Pro	Phe	Tyr	Gln	Ile	Arg	Arg	Ser	Glu	His	Pro	Val	Ala
625						630					635					640
	Gly	Thr	Gly	Leu	Gly	Leu	Ser	Ile	Ser	Gln	Arg	Leu	Ala	Gln	Leu	Met
				645						650					655	
	Asn	Gly	Ser	Leu	Lys	Leu	Val	Ser	Glu	Leu	Gly	Leu	Gly	Ser	Ser	Phe
				660					665					670		
	Ser	Leu	Arg	Leu	Pro	Leu	Glu	Arg	Ile	Ala	Met	Gln	Ala	Glu	Pro	Gln
				675				680					685			
	Asp	Leu	Ala	Gly	Cys	Ala	Val	Gln	Val	Leu	Ala	Pro	Val	Arg	Asp	Leu
				690			695					700				
	Thr	Glu	Cys	Leu	Cys	Gly	Trp	Ile	Ser	Arg	Trp	Gly	Gly	Arg	Ala	Met
705						710					715					720
	Val	Ala	Thr	Pro	Arg	Ser	Leu	Asp	Glu	Ala	Asp	Ala	Thr	Ser	Leu	Leu
				725						730					735	
	Val	Lys	Val	Leu	Leu	Glu	Gly	Ala	Pro	Met	Phe	Glu	Ala	Trp	Pro	
				740				745					750			
	Gly	Cys	Arg	Val	Glu	Leu	Ser	Pro	Gln	Gly	Asp	Met	Glu	Pro	Gln	Ala
				755				760					765			
	Gln	Gly	Arg	Asp	Trp	Leu	Leu	Gly	Leu	Asn	Asn	Leu	Asn	Gly	Leu	His
				770			775					780				
	Arg	Ala	Leu	Gly	Leu	Ala	His	Gly	Arg	Leu	Ala	Asp	Pro	Ser	Thr	Pro
785						790					795					800
	Pro	Ile	Arg	Leu	Ala	Pro	Leu	Arg	Asn	Leu	Gly	Leu	Arg	Val	Leu	Val
				805					810						815	
	Val	Glu	Asp	Asn	Ala	Ile	Asn	Gln	Leu	Ile	Leu	Arg	Asp	Gln	Met	Glu
				820					825					830		
	Ala	Leu	Gly	Cys	Ser	Val	Glu	Leu	Leu	Phe	Asp	Gly	Arg	Glu	Ala	Leu
				835				840					845			

Leu	His	Cys	Gln	Thr	Ala	Cys	Phe	Asp	Val	Val	Leu	Thr	Asp	Ile	Asn
850						855					860				
Met	Pro	Asn	Met	Asn	Gly	Tyr	Glu	Leu	Thr	Ala	Glu	Leu	Arg	Arg	Gln
865					870					875					880
Gly	Phe	Arg	Gln	Pro	Ile	Ile	Gly	Ala	Thr	Val	Asn	Ala	Met	Arg	Glu
				885					890					895	
Glu	Arg	Glu	Arg	Cys	Met	Ser	Ala	Gly	Met	Asn	Asp	Cys	Leu	Val	Lys
			900					905					910		
Pro	Val	Asp	Leu	Asn	Ala	Leu	Gln	Asn	Cys	Leu	Ile	Asn	Ile	Leu	Lys
		915					920					925			
Val	Asp	Arg													
930															

<210> 140
 <211> 399
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 140

Met	Ser	Trp	Lys	Ser	Tyr	Arg	Val	Leu	Val	Val	Glu	Asp	Gln	Pro	Phe
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Gln	Arg	Glu	Tyr	Leu	Leu	Asn	Leu	Phe	Arg	Glu	Arg	Gly	Val	Gln	Tyr
			20					25					30		
Leu	Val	Gly	Ala	Gly	Asp	Gly	Ala	Glu	Ala	Leu	Arg	Cys	Leu	Lys	Gln
		35					40					45			
Asp	Arg	Phe	Asp	Leu	Ile	Leu	Ser	Asp	Leu	Met	Met	Pro	Gly	Met	Asp
	50					55					60				
Gly	Ile	Gln	Met	Ile	Leu	Gln	Leu	Pro	Tyr	Leu	Lys	His	Arg	Pro	Lys
65					70					75					80
Leu	Ala	Leu	Met	Ser	Ser	Ser	Ser	Gln	Arg	Met	Met	Leu	Ser	Ala	Ser
				85					90					95	
Arg	Val	Ala	Gln	Ser	Leu	Gly	Leu	Ser	Val	Ile	Asp	Leu	Leu	Pro	Lys
			100					105						110	
Pro	Thr	Leu	Pro	Lys	Ala	Ile	Gly	Gln	Leu	Leu	Glu	His	Leu	Glu	Arg
			115				120						125		
Cys	Leu	Arg	Gln	Lys	Leu	Glu	Pro	Glu	Thr	Asp	Glu	Thr	Pro	His	Gly
	130					135					140				
Arg	Thr	Ala	Leu	Leu	Asp	Ala	Leu	His	Asn	Glu	Gln	Leu	Val	Thr	Trp
145					150					155					160
Phe	Gln	Ala	Lys	Lys	Ser	Leu	His	Thr	Gly	Arg	Ile	Val	Gly	Ala	Glu
			165						170					175	
Ala	Leu	Ile	Arg	Trp	Ser	His	Pro	Gln	His	Gly	Leu	Leu	Leu	Pro	Ser
			180					185					190		
Cys	Phe	Met	Ser	Asp	Val	Asp	Ala	Thr	Gly	Leu	His	Glu	Ala	Leu	Leu
		195					200					205			
Trp	Arg	Val	Leu	Glu	Gln	Thr	Leu	Asn	Ala	Gln	Glu	Ser	Trp	Arg	Arg
	210					215					220				
Ala	Gly	Tyr	Glu	Ile	Pro	Val	Ser	Val	Asn	Leu	Pro	Pro	His	Leu	Leu
225					230					235					240
Asp	Asn	Gln	Glu	Leu	Pro	Asp	Arg	Leu	Tyr	Glu	Tyr	Val	Gly	Ala	Arg
				245					250					255	
Gly	Ala	Cys	Thr	Ser	Ser	Leu	Cys	Phe	Glu	Leu	Thr	Glu	Ser	Ser	Val
			260					265					270		
Thr	Thr	Leu	Ser	Ser	Asn	Tyr	Tyr	Ala	Gly	Ala	Cys	Arg	Leu	Arg	Met
		275					280					285			
Lys	Gly	Phe	Gly	Leu	Ala	Gln	Asp	Asp	Phe	Gly	Gln	Gly	Tyr	Ser	Ser
	290					295					300				
Phe	Tyr	Asn	Leu	Val	Thr	Thr	Pro	Phe	Thr	Glu	Leu	Lys	Ile	Asp	Arg

305					310					315				320	
Ser	Leu	Val	Gln	Gly	Cys	Val	Glu	Asp	Asn	Gly	Leu	Asn	Ala	Ala	Val
				325					330					335	
Ile	Ser	Cys	Ile	Glu	Leu	Gly	His	Arg	Leu	Asn	Leu	Asp	Val	Val	Ala
			340					345					350		
Glu	Gly	Val	Glu	Thr	Cys	Glu	Glu	Leu	Asn	Leu	Leu	Arg	Arg	Leu	Gly
		355					360					365			
Cys	Asp	Arg	Ala	Gln	Gly	Phe	Leu	Ile	Ser	Lys	Ala	Val	Ser	Ala	Arg
	370					375					380				
Glu	Phe	Glu	Arg	Gln	Leu	Arg	Glu	Asp	Gly	Pro	Ser	Leu	Leu	Val	
385					390					395					

<210> 141
 <211> 1084
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 141															
Val	Lys	Ser	Ala	Ser	Ala	Leu	Glu	His	Asp	Asn	Lys	Leu	Leu	Leu	Lys
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Trp	Thr	Thr	Leu	Ser	Gln	Ser	Leu	Ser	Ile	Gly	Leu	Ile	Cys	Val	Val
			20					25					30		
Val	Leu	Thr	Val	Leu	Leu	Phe	Ser	Ile	Cys	Tyr	Trp	Ser	Leu	Gly	Arg
		35					40					45			
Leu	Phe	Gln	Glu	Glu	Glu	Asp	Lys	Val	Ser	Phe	His	Phe	Thr	Arg	Met
	50					55					60				
Met	Asp	Val	Ile	Arg	Glu	His	Glu	Val	Phe	Leu	Gly	Arg	Ile	Ala	Arg
65				70						75					80
Lys	Ser	Asp	Lys	Thr	Thr	Gln	Lys	Tyr	Asp	Tyr	Asp	Val	Val	Pro	Leu
			85					90						95	
Gln	Arg	His	Leu	Leu	Ala	Lys	Glu	Asn	Gly	Leu	Ala	Val	Tyr	Glu	Gly
			100					105					110		
Arg	Glu	Phe	Ser	Phe	Ala	Met	Pro	Phe	Leu	Leu	Ala	Thr	Lys	His	Ala
		115				120						125			
Leu	Ser	Ala	Asp	Ser	Ser	Gly	Asp	Pro	Phe	Ser	Leu	Gly	Val	Leu	Leu
		130				135					140				
Ala	Asn	Phe	Tyr	Gly	Ser	Phe	Trp	Ser	Val	Ser	Ala	Tyr	Pro	Ala	Pro
145					150					155					160
Gln	Leu	Leu	Ile	Phe	Asp	Leu	Ser	Gly	Ser	Thr	Arg	Leu	Ala	Val	Pro
			165					170						175	
Ser	Ile	Pro	Ser	Thr	Ala	Gln	Arg	Asp	Arg	Leu	Ser	Gly	Ser	Tyr	Pro
		180						185					190		
Met	Ile	Val	Glu	Arg	Ile	Leu	Ala	Arg	Leu	Arg	Thr	Arg	Pro	Val	Gly
		195				200						205			
Glu	Asp	Ala	Gln	Arg	Val	His	Trp	Ile	Arg	Ala	Asp	Arg	Tyr	Arg	Asp
	210					215					220				
Ser	Ala	Leu	Glu	Met	Leu	Gly	Val	Ala	Arg	Val	Asp	Leu	Pro	Glu	Thr
225					230					235					240
Leu	Trp	Trp	His	Asp	Glu	Pro	Asn	His	Leu	Ile	Ile	Ala	Ala	Ser	Leu
			245					250						255	
Leu	Asp	Leu	Arg	Arg	Ile	Asn	Asp	Phe	Glu	Gln	Leu	Val	Glu	Arg	Pro
		260						265					270		
Ala	Phe	Asp	Ser	Tyr	Ser	Leu	Val	Ser	Pro	Asp	Gly	Glu	Val	Leu	Leu
		275				280						285			
Gly	Ala	Ala	Pro	Ala	Thr	Gly	Leu	Arg	Asp	Gly	Leu	Asn	Leu	Thr	Arg
	290					295					300				
Gln	Gly	Val	Ala	Val	Gln	Leu	Leu	Ser	Gln	Pro	Glu	Asn	Gly	Trp	Leu
305					310					315					320

Ala	Val	Tyr	Arg	Thr	Asp	Tyr	Gly	Asn	Phe	Phe	Arg	His	Ser	Arg	Trp
				325					330					335	
Leu	Val	Ala	Gly	Leu	Leu	Leu	Thr	Pro	Ala	Leu	Leu	Leu	Ala	Gly	Trp
			340					345					350		
Leu	Gly	Met	Arg	Trp	Tyr	Thr	Ser	Ser	Val	Val	Asn	Pro	Val	His	Arg
		355					360					365			
Ala	His	Arg	Gln	Leu	Val	Glu	Ser	Asp	Thr	Phe	Ser	Arg	Thr	Leu	Ile
	370					375					380				
Gln	Thr	Ala	Pro	Val	Ala	Leu	Val	Val	Leu	Thr	Gln	Asp	Asp	Gln	Gln
385					390					395					400
Leu	Val	Thr	Cys	Asn	His	Leu	Ala	Ala	Gln	Trp	Leu	Gly	Gly	Pro	Thr
			405						410					415	
Glu	Ile	Leu	Gly	Leu	Thr	Ser	Asn	Trp	Lys	Leu	Phe	Asp	Ala	Arg	Gly
		420						425					430		
Gln	Val	Pro	Gly	Asp	Ile	Cys	Ile	Gln	Val	Gly	Gly	Arg	Tyr	Leu	Gln
		435					440					445			
Thr	Ala	Phe	Ala	Ala	Thr	Arg	Tyr	Ala	Gly	Thr	Glu	Ala	Val	Leu	Cys
	450					455					460				
Val	Phe	Asn	Asp	Ile	Thr	Val	His	Cys	Glu	Ala	Glu	Thr	Ala	Leu	Ser
465					470					475					480
Asn	Ala	Lys	Arg	Ala	Ala	Asp	Ala	Ala	Ser	Gln	Ala	Lys	Thr	Leu	Phe
			485						490					495	
Leu	Ala	Arg	Met	Ser	His	Glu	Ile	Arg	Thr	Pro	Leu	Tyr	Gly	Val	Leu
		500						505					510		
Gly	Thr	Leu	Glu	Leu	Leu	Asp	Leu	Thr	Thr	Leu	Asn	Glu	Arg	Gln	Arg
		515					520					525			
Ala	Tyr	Leu	Arg	Thr	Ile	Gln	Ser	Ser	Ser	Ala	Thr	Leu	Met	Gln	Leu
	530					535					540				
Ile	Ser	Asp	Val	Leu	Asp	Val	Ser	Lys	Ile	Glu	Ala	Gly	Gln	Met	Ala
545					550					555					560
Leu	Thr	Leu	Ala	Ala	Phe	Asn	Pro	Leu	Asp	Leu	Val	Arg	Glu	Val	Leu
			565						570					575	
Gly	Asn	Phe	Ala	Ala	Ser	Ala	Met	Ala	Lys	Asp	Leu	Gln	Phe	Tyr	Ala
		580						585					590		
Cys	Ile	Asp	Thr	Glu	Val	Pro	Ala	Gln	Leu	Ile	Gly	Asp	Val	Thr	Arg
	595						600					605			
Ile	Arg	Gln	Val	Leu	Asn	Asn	Leu	Val	Asn	Asn	Ala	Leu	Lys	Phe	Thr
	610					615					620				
Asp	Ile	Gly	Arg	Val	Val	Leu	Arg	Val	Lys	Leu	Leu	Ser	Arg	Asn	Asp
625					630					635					640
Gly	Arg	Ala	Leu	Leu	Gln	Trp	Gln	Val	Ala	Asp	Thr	Gly	Ile	Gly	Ile
			645						650					655	
Ala	His	Glu	Gln	Gln	Glu	Arg	Leu	Phe	Glu	Ala	Phe	Tyr	Gln	Val	Ser
			660					665					670		
Gly	Ala	His	His	Ala	Gly	Gly	Thr	Gly	Leu	Gly	Leu	Ser	Ile	Cys	Trp
	675						680					685			
His	Leu	Ala	Glu	Met	Met	Gly	Gly	His	Leu	Arg	Met	Val	Ser	Glu	Thr
	690					695					700				
Gly	Leu	Gly	Ser	Ser	Phe	Ser	Leu	Val	Leu	Glu	Leu	Pro	Glu	Asp	Glu
705					710					715					720
Gln	Ser	Gly	Leu	Ala	Cys	Arg	Pro	Gly	Leu	Leu	Lys	Ser	Ala	Cys	Val
			725						730					735	
His	Val	Arg	Ser	Pro	Val	Arg	Glu	Leu	Ala	Asp	Ser	Val	Gly	Ala	Trp
			740					745					750		
Leu	Lys	Ala	Trp	Gly	Cys	Lys	Val	Ser	Ser	Gly	Glu	Ala	Ala	Pro	Ser
	755						760					765			
Glu	Leu	Glu	Thr	Cys	Val	Leu	Glu	Leu	Leu	Leu	Pro	Met	Ala	Ala	Gly
	770					775					780				
Pro	Ala	Ser	Ser	Pro	Trp	Pro	Gly	Pro	Arg	Val	Arg	Ala	Ser	Met	Asp

785		790		795		800									
Ala	Pro	Cys	Gln	Pro	Glu	Leu	Arg	Glu	Asp	Gly	Trp	Arg	Val	Gly	Leu
			805						810					815	
His	Asn	Leu	Ala	Gly	Ile	Gly	Gln	Ala	Leu	Ala	Gln	Ala	Leu	Gly	Gly
			820					825					830		
Asp	Ile	Pro	Glu	Gln	Thr	Pro	Ala	Asn	Ala	Cys	Ala	Arg	Ser	Gly	Arg
		835					840					845			
Leu	Asp	Leu	Glu	Val	Leu	Val	Ala	Glu	Asp	Asn	Pro	Val	Asn	Gln	Ala
	850					855					860				
Leu	Leu	Arg	Glu	Gln	Leu	Glu	Glu	Leu	Gly	Cys	Arg	Val	Ser	Leu	Ala
865					870					875					880
Gly	Asp	Gly	Arg	Gln	Ala	Leu	Gln	Leu	Phe	Asp	Ser	Gly	Arg	Phe	Asp
				885					890					895	
Leu	Leu	Leu	Ser	Asp	Val	Asn	Met	Pro	Asn	Met	Thr	Gly	Tyr	Glu	Leu
			900					905					910		
Thr	Gln	Ala	Leu	Arg	Glu	Arg	Gly	Glu	Thr	Leu	Pro	Ile	Ile	Gly	Val
		915					920					925			
Thr	Ala	Asn	Ala	Leu	Arg	Glu	Glu	Gly	Glu	Arg	Cys	Arg	Ala	Val	Gly
	930					935					940				
Met	Asn	Ser	Trp	Leu	Val	Lys	Pro	Ile	Thr	Leu	His	Thr	Leu	His	Glu
945					950					955					960
Leu	Leu	Ser	Glu	Phe	Ala	Arg	Ala	Gly	Val	Val	Leu	Pro	Ala	Gln	Ala
				965					970					975	
Arg	Asp	Leu	Gly	Pro	Pro	Ala	Gln	Leu	Asp	Asp	Gly	Leu	Ser	Pro	Gln
			980					985					990		
Val	Pro	Glu	Arg	Met	Arg	Ala	Leu	Phe	Leu	Glu	Thr	Met	Gly	Lys	Asp
		995				1000						1005			
Leu	Glu	Ala	Ala	Arg	Gln	Ala	Ile	Arg	Arg	Asn	Asp	Pro	Lys	Gly	Leu
	1010					1015					1020				
Gln	Gln	Asp	Leu	His	Arg	Met	Ala	Gly	Ser	Leu	Ala	Val	Met	Arg	Ala
1025					1030					1035					1040
Arg	Thr	Leu	Val	Val	Met	Cys	Gln	Gly	Ala	Glu	Glu	Gly	Leu	Leu	Glu
				1045					1050					1055	
Ser	Arg	Leu	Glu	Cys	Ser	Ala	Val	Glu	Ile	Gly	Glu	Val	Leu	Val	His
			1060					1065					1070		
Ile	Glu	Gln	Ala	Leu	Glu	Phe	Val	Arg	Lys	Thr	Gly				
		1075					1080								

<210> 142
 <211> 231
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 142															
Met	Arg	Pro	Gly	Ser	Ile	Val	Gly	Ile	Arg	Thr	Gln	Glu	Lys	Pro	Met
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Ser	Lys	Leu	Lys	Ile	Val	Leu	Ala	Asp	Asp	His	Pro	Ile	Val	Arg	Met
			20					25					30		
Gly	Val	Cys	Asp	Met	Leu	Glu	Arg	Asp	Gly	Arg	Phe	Glu	Val	Val	Gly
		35					40					45			
Glu	Ala	Ser	Thr	Pro	Ser	Glu	Leu	Val	Glu	Val	Cys	Arg	Gln	Ser	Glu
	50					55					60				
Pro	His	Ile	Ala	Ile	Thr	Asp	Tyr	Ser	Met	Pro	Gly	Asp	Glu	Arg	Tyr
65					70					75					80
Gly	Asp	Gly	Leu	Lys	Leu	Ile	Asp	Tyr	Leu	Leu	Arg	Asn	Phe	Pro	Arg
				85					90					95	
Thr	Lys	Val	Leu	Ile	Phe	Thr	Met	Val	Gly	Asn	Arg	Leu	Ile	Leu	Asp
			100					105					110		

Ser	Leu	Tyr	Asp	His	Gly	Val	Ser	Gly	Val	Val	Leu	Lys	Ser	Gly	Glu
		115						120				125			
Leu	Asp	Glu	Leu	Leu	Leu	Ala	Leu	Asp	Val	Val	Lys	Gln	Asn	Arg	Val
	130					135					140				
Tyr	Arg	Gly	Ala	Asn	Met	Leu	Asp	Pro	Thr	Ser	Val	Leu	Ala	Asn	Arg
145					150					155					160
Asp	Glu	Val	Glu	Ser	Arg	Phe	Ala	Arg	Leu	Ser	Met	Lys	Glu	Phe	Glu
				165					170					175	
Val	Leu	Arg	His	Phe	Val	Ser	Gly	Ser	Asn	Val	Cys	Asp	Ile	Ala	Arg
			180					185					190		
Leu	Leu	Lys	Arg	Ser	Val	Lys	Thr	Val	Ser	Thr	Gln	Lys	Val	Ser	Ala
		195					200					205			
Met	Arg	Lys	Leu	Glu	Val	Asn	Ser	Asp	Gln	Ala	Leu	Met	Thr	Phe	Cys
	210					215					220				
Val	His	Ala	Asn	Leu	Phe	His									
225					230										

<210> 143
 <211> 238
 <212> PRT
 <213> *Pseudomonas aeruginosa*

Val	Ser	Ser	Lys	Ile	Leu	Leu	Gln	Gly	Ala	Leu	Leu	Gly	Leu	Ala	Met
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Leu	Ala	Val	Leu	Asp	Ala	Arg	Ala	Gly	Val	Thr	Ala	Glu	Arg	Thr	Arg
			20					25					30		
Ala	Ile	Ile	Ala	Glu	Gly	His	Arg	Glu	Thr	Ser	Leu	Leu	Leu	Val	Asn
		35				40						45			
Gln	Asn	Ala	Tyr	Pro	Val	Ile	Val	Gln	Thr	Trp	Ile	Asp	Asp	Gly	Ala
	50					55					60				
Pro	Asn	Ser	Thr	Pro	Gln	Ser	Ala	Arg	Ala	Pro	Ile	Met	Pro	Leu	Pro
65					70					75					80
Pro	Val	Phe	Arg	Leu	Glu	Pro	Gly	Gln	Gln	Arg	Ser	Leu	Arg	Leu	Leu
				85				90						95	
Arg	Thr	Gly	Gln	Ala	Leu	Pro	Gly	Asp	Arg	Glu	Ser	Leu	Tyr	Trp	Leu
			100				105						110		
Asn	Leu	Tyr	Glu	Ile	Pro	Pro	Gln	Ala	Thr	Gly	Leu	Leu	Ala	Glu	Gly
		115					120					125			
Gln	Ser	Arg	Leu	Thr	Val	Thr	Leu	Arg	Thr	Gln	Met	Lys	Val	Ile	Tyr
	130					135					140				
Arg	Pro	Arg	Pro	Leu	Ala	Arg	Gly	Ala	Glu	Glu	Ala	Pro	His	Gln	Leu
145					150					155					160
Arg	Phe	Glu	Arg	Arg	Gly	Glu	Thr	Leu	Gln	Met	Glu	Asn	Pro	Thr	Pro
				165					170					175	
Tyr	Phe	Ile	Ser	Leu	Ala	Gly	Ala	Glu	Leu	Gly	Gly	His	Thr	Arg	Leu
			180					185					190		
Ala	Ala	Ala	Glu	Leu	Leu	Pro	Pro	Phe	Ser	Arg	Arg	Val	Leu	Ala	Leu
		195					200					205			
Arg	Gln	Ala	Leu	Pro	Gly	Gly	Gln	Ala	Glu	Val	Arg	Phe	Ser	Trp	Ile
	210					215					220				
Asp	Asp	Gly	Gly	Asn	Leu	Gln	Gln	Gly	Arg	Ser	Leu	Leu	His		
225					230					235					

<210> 144
 <211> 448
 <212> PRT

<213> Pseudomonas aeruginosa

<400> 144

Met	Lys	Thr	Ser	Leu	Arg	Val	Leu	Pro	Leu	Leu	Leu	Ala	Leu	Leu	Ala	
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Ser	Ser	Ser	Trp	Ala	Thr	Cys	Tyr	Lys	Val	Thr	Ala	Val	Gly	Asn	Ala	
			20					25					30			
Thr	Thr	Thr	Ser	Asn	Thr	Gln	Ile	Arg	Pro	Gly	Glu	Gly	Ser	Ala	Gly	
		35					40					45				
Thr	Trp	Ala	Gly	Ala	Cys	Asp	Thr	Cys	Asn	Gly	Ser	Leu	Gly	Leu	Pro	
	50					55					60					
Ser	Val	Ile	Asn	Val	Ser	Asp	Ala	Ser	Phe	Gln	Pro	Asp	Gly	Ser	Leu	
65					70					75					80	
Ile	Ala	Ser	Ser	Val	Ala	Pro	Leu	Ser	Gln	Tyr	Gly	Asp	Ser	Ala	Gly	
				85					90					95		
Tyr	Asp	Pro	Glu	Arg	Val	Phe	Phe	Arg	Cys	Ala	Pro	Glu	Asp	Asp	Val	
			100					105					110			
Tyr	Glu	Met	Phe	Ser	Thr	Asn	Ala	Asp	Asp	Leu	Tyr	Ser	Gly	Trp	Tyr	
		115					120						125			
Leu	Gly	Gly	Asp	Ser	Ala	Gly	Asn	Ser	Ile	Gly	Leu	Gln	Ser	Ala	Tyr	
	130					135					140					
Arg	Thr	Ala	Trp	Pro	Asn	Val	Leu	Leu	Arg	Leu	Thr	His	Val	Glu	Thr	
145					150					155					160	
Gly	Gln	Tyr	Phe	Thr	Asp	Val	Trp	Arg	Glu	Arg	Leu	Leu	Gly	Gly	Leu	
				165					170					175		
Asp	Ile	Asp	Ser	Arg	Gly	Phe	Gln	Leu	Val	Lys	Ala	Lys	Asn	Leu	Ser	
			180					185					190			
Ala	Val	Arg	Ala	Glu	Leu	Phe	Arg	Ala	Pro	Leu	Glu	Phe	Ile	Arg	Tyr	
		195					200					205				
Tyr	Ser	Pro	Thr	Thr	Ala	Ser	Arg	Leu	Tyr	Ala	Tyr	Thr	Gln	Pro	Ala	
	210					215					220					
Gly	Tyr	Ile	Ala	Ile	Lys	Gly	Pro	Gly	Leu	Ala	Tyr	Pro	Asn	Val	Gly	
225					230					235					240	
Ala	Ser	His	Asn	Ala	Asn	Tyr	Leu	Gly	Trp	His	Tyr	Asn	Trp	Pro	Gly	
				245					250					255		
Ala	Ile	Gly	Leu	Tyr	Asn	Asp	Val	Thr	Leu	Lys	Arg	Tyr	Pro	Thr	Cys	
			260					265					270			
Ser	Val	Thr	Asn	Val	Thr	Pro	His	Val	Val	Phe	Pro	Ser	Ile	Ser	Leu	
		275					280					285				
Ser	Glu	Ile	Asn	Ala	Gly	Ala	Asn	Arg	Glu	Met	Pro	Phe	Glu	Val	Ala	
	290					295					300					
Phe	Lys	Cys	Gln	Thr	Gly	Val	Ile	Asn	Ser	Thr	Ala	Ser	Ser	Gly	Thr	
305					310					315					320	
Ala	Leu	Gly	Ile	Arg	Ala	Ser	Ala	Gly	Ala	Gln	Ala	Ala	Ser	Ala	Ala	
				325					330					335		
Leu	Gly	Leu	Arg	Asn	Ala	Asn	Gly	Gly	Leu	Ser	Tyr	Leu	Val	Ser	Asp	
		340					345						350			
Arg	Tyr	Gly	Gln	Pro	Gly	Met	Ala	Gln	Gly	Val	Gly	Ile	Arg	Leu	Leu	
		355					360					365				
Arg	Asp	Gly	Ser	Ala	Met	Asn	Leu	Leu	Val	Ser	Glu	Asp	Ser	Ala	Met	
	370					375					380					
Gly	Ser	Asn	Ala	Glu	Thr	Arg	Gly	Trp	Tyr	Pro	Val	Ile	Gly	Asn	Ala	
385					390					395					400	
Ser	Asn	Lys	Thr	Gly	Glu	Ala	Gly	Gly	Ile	Ser	Gln	Tyr	Ser	Glu	Thr	
				405					410					415		
Phe	Arg	Ala	Arg	Leu	Glu	Lys	Leu	Thr	Val	Gly	Ser	Met	Pro	Ser	Val	
			420					425					430			
Thr	Pro	Gly	Arg	Val	Glu	Ala	Ser	Ala	Gln	Val	Val	Ile	Arg	Val	Gln	
		435					440					445				

<210> 145
 <211> 870
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 145
 Met Phe Cys His Val Glu Ala Arg Arg Thr Gly Lys Leu Pro Leu Ala
 1 5 10 15
 Leu Gly Gly Leu Ala Leu Ala Phe Ala Gly Leu Ala Asn Gly Glu Ala
 20 25 30
 Gln Tyr Arg Phe Asp Asp Ser Leu Leu Met Gly Ser Gly Leu Ala Gly
 35 40 45
 Gly Thr Leu Glu Arg Phe Asn Arg Ala Asn Gln Val Asp Pro Gly Thr
 50 55 60
 Tyr His Val Asp Val Tyr Leu Asn Gly Ser Tyr Ala Ser Arg Thr Arg
 65 70 75 80
 Ile Glu Phe Arg Pro Arg Ala Gly Gly Val Lys Pro Cys Phe Gly Glu
 85 90 95
 Arg Phe Leu Arg Arg Thr Leu Gly Val Arg Pro Ala Ser Glu Ala Gly
 100 105 110
 Val Gln Ala Pro Gly Asp Cys Leu Gly Leu Glu Glu Arg Leu Pro Gly
 115 120 125
 Ser Thr Phe Asn Leu Asp Thr Ala Leu Leu Arg Leu Asp Leu Ser Val
 130 135 140
 Pro Gln Ala Leu Leu Asp Ile Lys Pro Arg Gly Tyr Val Gly Pro Asp
 145 150 155 160
 Glu Trp Asp Ala Gly Ser Ser Met Gly Phe Val Asn Tyr Asp Ala Ser
 165 170 175
 Phe Tyr Arg Ser Ser Phe Asp Gly Val Gly Gly Asn Gly Asp Ser Asp
 180 185 190
 Tyr Gly Tyr Leu Gly Leu Ser Gly Gly Ile Asn Phe Gly Leu Trp Arg
 195 200 205
 Leu Arg His Gln Ser Asn Tyr Ser Tyr Ser Ser Tyr Ala Gly Asn Thr
 210 215 220
 Arg Ser Asp Trp Asn Ser Ile Arg Thr Tyr Ala Gln Arg Ala Val Pro
 225 230 235 240
 Gly Leu Arg Ser Glu Leu Thr Leu Gly Glu Ser Phe Thr Glu Gly Asn
 245 250 255
 Leu Phe Gly Ser Leu Gly Tyr Arg Gly Val Arg Leu Ala Ser Asp Asp
 260 265 270
 Arg Met Leu Ala Asp Ser Gln Arg Arg Tyr Ala Pro Gln Val Arg Gly
 275 280 285
 Thr Ala Asn Ser Asn Ala Arg Val Val Ile Ser Gln Asn Gly Lys Lys
 290 295 300
 Val His Glu Ser Ala Val Ala Pro Gly Pro Phe Val Ile Asn Asp Leu
 305 310 315 320
 Tyr Gly Thr Ala Tyr Asp Gly Asp Leu Asp Val Gln Val Ile Glu Ala
 325 330 335
 Asp Gly Ser Val Ser Arg Phe Ser Val Pro Phe Ser Ala Val Pro Glu
 340 345 350
 Ser Met Arg Pro Gly Ile Ser Arg Tyr Ser Ala Thr Leu Gly Gln Ala
 355 360 365
 Arg Gln Tyr Gly Asp Gly Asn Asp Leu Phe Gly Asp Phe Thr Tyr Gln
 370 375 380
 Arg Gly Leu Thr Asn Ser Leu Thr Ala Asn Leu Gly Ser Arg Leu Ala
 385 390 395 400
 Glu Asp Tyr Leu Ala Leu Leu Gly Gly Gly Val Leu Ala Thr Pro Tyr
 405 410 415

Gly	Ala	Phe	Gly	Phe	Asn	Ser	Ile	Phe	Ser	His	Ala	Thr	Val	Glu	Asn		
			420					425					430				
Gly	Gln	Arg	Lys	Gln	Gly	Trp	Arg	Val	Gly	Leu	Asn	Tyr	Ser	Arg	Thr		
		435				440						445					
Phe	Gln	Pro	Thr	Gln	Thr	Thr	Leu	Thr	Leu	Ala	Gly	Tyr	Arg	Tyr	Ser		
	450					455					460						
Thr	Glu	Gly	Tyr	Arg	Asp	Leu	Gly	Asp	Ala	Leu	Ser	Ala	Arg	His	Ala		
465					470					475					480		
Asp	Glu	His	Asn	Asp	Ser	Trp	Asn	Ser	Ser	Ser	Tyr	Lys	Gln	Arg	Asn		
				485					490						495		
Gln	Phe	Thr	Leu	Leu	Val	Asn	Gln	Gly	Leu	Gly	Gly	Tyr	Gly	Asn	Leu		
			500					505					510				
Tyr	Leu	Ser	Gly	Ala	Thr	Ser	Asp	Tyr	Tyr	Asp	Gly	Lys	Ser	Arg	Asp		
	515						520					525					
Thr	Gln	Leu	Gln	Phe	Gly	Tyr	Ser	Asn	Thr	Trp	Arg	Gln	Leu	Ser	Tyr		
	530						535					540					
Asn	Leu	Ala	Tyr	Ser	Arg	Gln	Gln	Thr	Thr	Trp	Tyr	Arg	Asp	Leu	Asn		
545					550					555					560		
Asp	Asp	Tyr	Asp	Pro	Ser	Leu	Pro	Pro	Gln	Tyr	Asn	Leu	Arg	His	Gly		
				565					570					575			
Ser	Glu	Arg	Ser	Asn	Thr	Leu	Thr	Leu	Thr	Leu	Ser	Met	Pro	Leu	Gly		
			580					585					590				
Ser	Ser	Ser	Gln	Ala	Pro	Asn	Leu	Ser	Ala	Met	Ala	Ser	Arg	Arg	Ser		
		595					600					605					
Gly	Asp	Ser	Arg	Gly	Ser	Ser	Tyr	Gln	Thr	Gly	Leu	Asn	Gly	Thr	Leu		
	610					615					620						
Asp	Glu	Asp	Arg	Ser	Leu	Ser	Tyr	Ala	Ile	Ala	Ala	Gly	Arg	Asp	Ser		
625					630					635					640		
Asp	Asn	His	Gly	Ser	Asp	Phe	Asn	Gly	Ser	Leu	Gln	Lys	Gln	Thr	Ser		
				645					650					655			
Val	Ala	Thr	Leu	Asn	Ala	Gly	Tyr	Ala	Glu	Asn	Ser	Ser	Tyr	Arg	Gln		
			660					665					670				
Leu	Asn	Thr	Gly	Leu	Arg	Gly	Ala	Ala	Val	Leu	His	Arg	Gly	Gly	Leu		
		675					680					685					
Thr	Leu	Gly	Pro	Tyr	Val	Gly	Asp	Thr	Phe	Ala	Leu	Val	Glu	Ala	Lys		
	690					695					700						
Gly	Ala	Ser	Gly	Ala	Gly	Val	Arg	Gly	Gly	Gln	Gly	Ala	Arg	Val	Asn		
705					710					715					720		
Gly	Asn	Gly	Tyr	Ala	Val	Val	Pro	Ser	Leu	Ser	Pro	Tyr	Arg	Tyr	Asn		
				725					730					735			
Pro	Val	Ser	Leu	Asp	Pro	Gln	Gly	Met	Gly	Glu	Glu	Ala	Glu	Leu	Leu		
			740					745					750				
Glu	Thr	Glu	Arg	Lys	Ile	Ala	Pro	Tyr	Ala	Gly	Ala	Ala	Val	His	Val		
		755					760					765					
Lys	Phe	Arg	Thr	Leu	Thr	Gly	His	Pro	Leu	Leu	Ile	Gln	Ala	Gln	Leu		
	770					775					780						
Ala	Asp	Gly	Ser	Ala	Leu	Pro	Leu	Gly	Ala	Asn	Val	Leu	Asp	Ser	Gln		
785					790					795					800		
Gly	Val	Asn	Ile	Gly	Met	Val	Gly	Gln	Gly	Gln	Val	Tyr	Ala	Arg			
				805					810				815				
Ala	Glu	Gly	Asp	Lys	Gly	Arg	Leu	Arg	Val	Gln	Trp	Ser	Glu	Arg	Pro		
			820					825					830				
Gly	Asp	Ala	Cys	Leu	Leu	Asp	Tyr	Asp	Leu	Asp	Thr	Gly	Pro	Arg	Gln		
	835						840					845					
Ala	Ile	Glu	Pro	Gly	Gln	Ala	Val	Ile	Arg	Leu	Gln	Gly	Thr	Cys	Thr		
	850					855					860						
Pro	Val	Ser	Glu	Ala	Pro												
865					870												

<210> 146
 <211> 248
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 146
 Met Asn Thr Phe Pro Leu Pro Pro Leu Arg Ala Ala Thr Leu Ala Leu
 1 5 10 15
 Ala Leu Leu Ile Pro Ala Ile Pro Ala Gln Ser Ser Val Val Ile Ile
 20 25 30
 Gly Thr Arg Val Ile Tyr Pro Gly Asp Ala Arg Glu Lys Thr Val Gln
 35 40 45
 Met Ile Asn Gln Asp Ala Phe Pro Asn Val Ile Gln Ala Trp Ile Asp
 50 55 60
 Asn Asp Asp Pro Ser Ser Thr Pro Glu Thr Ala Asn Ala Pro Phe Leu
 65 70 75 80
 Val Ser Pro Ala Val Thr Arg Ile Ala Pro Gly Ser Gly Gln Thr Leu
 85 90 95
 Arg Leu Leu Tyr Thr Gly Leu Pro Leu Pro Glu Asp Arg Glu Ser Leu
 100 105 110
 Phe His Leu Asn Val Leu Gln Ile Pro Pro Arg Asp Leu Ala Lys Ala
 115 120 125
 Glu Arg Asn Gln Met Leu Leu Met Gln Arg Ser Arg Leu Lys Leu Phe
 130 135 140
 Tyr Arg Pro Ala Ala Leu Leu Gly Gly Ser Glu Gln Leu Val Glu Gln
 145 150 155 160
 Leu His Phe Ser Leu Val Gln Ala Ser Gly Asn Trp Arg Val Arg Val
 165 170 175
 Asp Asn Pro Ser Gly Tyr Tyr Ala Ser Phe Ala Gly Ala Met Leu Ser
 180 185 190
 Ile Gly Glu Arg Arg Trp Arg Leu Ser Ser Met Val Pro Pro Lys
 195 200 205
 Gly Gln Ala Glu Trp Ala Ala Glu Arg Pro Ser Pro Leu Ala Pro Gly
 210 215 220
 Pro Val Gln Leu Asn Ala Leu Leu Ile Asn Asp Tyr Gly Ala Arg Met
 225 230 235 240
 Glu Val Gln His Val Leu Pro Arg
 245

<210> 147
 <211> 182
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 147
 Met Lys Pro Gln Ser Thr Ala Leu Thr Ile Ala Ala Phe Leu Ala Leu
 1 5 10 15
 Pro Gly Ile Ala Ala Ala Asn Thr Ile Thr Phe His Gly Glu Val
 20 25 30
 Thr Asp Gln Thr Cys Ser Ala Val Val Asp Gly Arg Thr Asp Pro Thr
 35 40 45
 Val Ile Leu Asp Thr Val Pro Val Ser Ala Leu Asp Gly Ala Val Gly
 50 55 60
 Lys Pro Ala Gly Glu Thr Ser Phe Thr Leu Gln Leu Thr Gly Cys Ala
 65 70 75 80
 Ala Pro Ala Ala Asp Ala Glu Glu His Phe Ser Val Met Phe Gln Ala
 85 90 95
 Val Asn Pro Thr Ser Ala Gly Asn Leu Thr Asn Thr Ala Ser Ala Gly

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<210> 148
<211> 248
<212> PRT
<213> Pseudomonas aeruginosa
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<210> 149
<211> 744
<212> PRT
<213> Pseudomonas aeruginosa
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<400> 149

Met	Ala	Gly	Gln	Tyr	Pro	Leu	Glu	Ala	Leu	Leu	Arg	Pro	Ala	Val	Glu
1				5					10					15	
Leu	Tyr	Thr	Thr	Thr	Val	Cys	Phe	Thr	Ala	Ala	Ala	Leu	Cys	Ile	Val
		20						25					30		
Ala	Pro	Trp	Thr	Phe	Ser	Leu	Thr	Pro	Leu	Phe	Gly	Ile	Val	Ala	Ala
		35					40					45			
Leu	Cys	Phe	Ala	Trp	Leu	Gly	Ile	Val	Arg	Leu	Lys	Gln	Ala	Gly	Val
50						55					60				
Val	Leu	Arg	Tyr	Arg	Arg	Asn	Ile	Arg	Arg	Leu	Pro	Lys	Tyr	Thr	Met
65					70					75					80
Thr	Ser	Ala	Glu	Met	Pro	Val	Ser	Asn	Glu	His	Leu	Phe	Ile	Gly	Lys
			85						90					95	
Gly	Phe	Arg	Trp	Thr	Gln	Lys	His	Thr	Gln	Arg	Leu	Ala	Asp	Thr	Tyr
			100					105					110		
Leu	Pro	Gln	Phe	Ala	Ser	Tyr	Val	Glu	Pro	Ser	Pro	Leu	Tyr	Glu	Arg
		115					120					125			
Ala	Arg	Arg	Leu	Glu	Lys	Gln	Leu	Glu	Phe	Ala	Pro	Phe	Pro	Leu	Lys
		130				135					140				
Leu	Val	Ala	Lys	Ala	Thr	Ala	Trp	Asp	Val	Ala	Trp	Asn	Pro	Ala	Arg
145					150					155					160
Pro	Leu	Pro	Pro	Val	Gly	Gly	Leu	Pro	Arg	Leu	His	Gly	Ile	Glu	Pro
			165						170					175	
Arg	Glu	Gln	Asp	Val	Gly	Leu	Gln	Leu	Gly	Glu	Arg	Val	Gly	His	Thr
		180					185						190		
Leu	Val	Leu	Gly	Thr	Thr	Arg	Val	Gly	Lys	Thr	Arg	Leu	Ala	Glu	Leu
		195					200					205			
Phe	Ile	Thr	Gln	Asp	Ile	Arg	Arg	Thr	His	Cys	Arg	Val	Arg	Arg	Arg
	210					215				220					
Arg	Val	Lys	Met	Gly	Arg	Arg	Thr	Gln	Thr	Val	His	His	Gly	Tyr	Arg
225					230					235					240
Arg	Arg	Arg	Ala	Glu	Gln	Pro	Asp	Tyr	Glu	Val	Val	Ile	Val	Phe	
			245					250					255		
Asp	Pro	Lys	Gly	Asp	Ala	Asp	Leu	Leu	Lys	Arg	Met	Tyr	Val	Glu	Cys
		260					265						270		
Glu	Arg	Ala	Gly	Arg	Leu	Asp	Glu	Phe	Tyr	Val	Phe	His	Leu	Gly	His
		275					280					285			
Pro	Asp	Leu	Ser	Ala	Arg	Tyr	Asn	Ala	Val	Gly	Arg	Phe	Gly	Arg	Ile
	290					295					300				
Ser	Glu	Val	Ala	Thr	Arg	Val	Ala	Gly	Gln	Leu	Ser	Gly	Glu	Gly	Asn
305					310				315						320
Ser	Ala	Ala	Phe	Arg	Glu	Phe	Ala	Trp	Arg	Phe	Val	Asn	Ile	Ile	Ala
			325					330						335	
Arg	Ala	Leu	His	Ala	Leu	Gly	Ile	Arg	Pro	Asp	Tyr	Gln	Gln	Ile	Leu
		340					345						350		
Arg	His	Val	Val	Asn	Ile	Asp	Ala	Leu	Phe	Val	Glu	Tyr	Ala	Gln	Lys
		355					360					365			
Tyr	Ile	Ser	Glu	His	Asp	Pro	Arg	Ala	Trp	Asp	Thr	Ile	Ile	Gln	Ile
	370					375					380				
Glu	Gly	Lys	Leu	Asn	Asp	Lys	Asn	Ile	Pro	Phe	Asn	Met	Lys	Gly	Arg
385					390					395					400
Pro	Leu	Arg	Val	Val	Ala	Ile	Asp	Gln	Tyr	Leu	Thr	Gln	Lys	Arg	Ile
			405					410						415	
Ala	Asp	Pro	Val	Met	Glu	Gly	Leu	Lys	Ser	Ala	Val	Arg	Tyr	Asp	Lys
		420						425					430		
Thr	Tyr	Phe	Asp	Lys	Ile	Val	Ala	Ser	Leu	Leu	Pro	Leu	Leu	Glu	Lys
		435					440					445			
Leu	Thr	Thr	Gly	Arg	Ile	Ser	Glu	Leu	Leu	Ser	Pro	Asn	Tyr	Ala	Asp
	450					455					460				
Leu	Asn	Asp	Pro	Arg	Pro	Ile	Phe	Asp	Trp	Met	Gln	Val	Ile	Arg	Lys

465					470					475				480
Arg	Ala	Val	Val	Tyr	Val	Gly	Leu	Asp	Ala	Leu	Ser	Asp	Thr	Glu
				485					490					495
Ala	Ala	Ala	Val	Gly	Asn	Ser	Met	Phe	Ser	Asp	Leu	Val	Ser	Val
			500					505					510	
Gly	His	Ile	Tyr	Lys	His	Gly	Val	Asp	Asp	Gly	Leu	Pro	Gly	Ser
		515					520					525		
Ala	Ser	Gly	Lys	Val	Arg	Ile	Asn	Leu	His	Ala	Asp	Glu	Phe	Asn
	530					535					540			
Leu	Ile	Gly	Asp	Glu	Phe	Ile	Pro	Met	Val	Asn	Lys	Ala	Gly	Gly
545					550					555				560
Gly	Val	Gln	Val	Thr	Ala	Tyr	Thr	Gln	Thr	Met	Ser	Asp	Ile	Glu
				565					570					575
Lys	Ile	Gly	Ser	Arg	Ala	Lys	Ala	Gly	Gln	Ile	Ile	Gly	Asn	Phe
			580					585					590	
Asn	Leu	Phe	Met	Leu	Arg	Val	Arg	Glu	Thr	Ala	Thr	Ala	Glu	Leu
		595					600					605		
Thr	Asn	Gln	Leu	Pro	Lys	Val	Gln	Ile	Tyr	Thr	Ser	Thr	Pro	Ala
	610					615					620			
Gly	Ala	Asn	Asp	Ala	Ile	Asn	Asn	Asn	Lys	Lys	Val	Ala	Phe	Thr
625					630					635				640
Ser	Ser	His	Asp	Gln	Val	Gln	Met	Thr	Ser	Val	Pro	Met	Leu	Glu
				645					650					655
Ala	His	Ile	Ile	Gly	Leu	Pro	Lys	Gly	Gln	Ala	Phe	Ala	Leu	Leu
			660					665					670	
Gly	Gly	Asn	Leu	Trp	Lys	Ile	Arg	Met	Pro	Leu	Pro	Ala	Val	Ala
		675				680					685			
Asp	Glu	Val	Met	Pro	Lys	Ser	Leu	Gln	Glu	Leu	Ala	Ala	Gly	Met
	690					695					700			
Lys	Gly	Gln	Ala	Ala	Asn	Ser	Glu	Trp	Trp	Glu	Ala	Pro	Gly	Tyr
705					710					715				720
Ala	Leu	Gln	Asp	Gly	Leu	Pro	Gln	Asp	Leu	Val	Asp	Asp	Phe	Arg
				725					730					735
Leu	Gly	Thr	Gly	Glu	Asp	Ala	Ala							
			740											

<210> 150
 <211> 85
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 150															
Met	Thr	Thr	His	Leu	Ile	Thr	Leu	Val	Ile	Lys	Gln	Pro	Ser	Asp	Ala
1				5					10					15	
Gln	Ala	Arg	Gln	Leu	Met	Tyr	Gln	Glu	Leu	Leu	Gly	Leu	Ile	Ser	Arg
			20					25					30		
Tyr	Gly	Gly	Glu	Val	Thr	Ser	Lys	Ala	Leu	Glu	Asp	Glu	Ser	Thr	Leu
		35					40					45			
Cys	Glu	Leu	Leu	Val	Gln	Met	Leu	Pro	Asp	His	Glu	Val	Glu	Gln	Ala
	50					55					60				
Arg	Lys	Gln	Val	Leu	Glu	Leu	His	Ala	Lys	Gly	Arg	Leu	Gln	Ala	Pro
65					70					75					80
Ala	Ser	Leu	Lys	Val											
				85											

<210> 151
 <211> 166

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 151

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Met Lys Lys Phe Leu Ala Thr Leu Ala Phe Cys Thr Ala Phe Ala Thr
 1      5      10      15
Gln Ala Trp Ala Gly Leu Ile Val Val Glu Asp Leu Gly Gly Ala
 20      25      30
Ser Ala Leu Pro Tyr Tyr Gln Gly Leu Asp Pro Gln Pro Ser Ala Ser
 35      40      45
Ala Pro Gly Pro Gly Asp Leu Gly Val Arg Gly Ser Gly Ala Phe Pro
 50      55      60
Val Arg Ser Ala Arg Leu Ser Pro Gly Arg Val Gln Gly Arg Ala Ile
 65      70      75      80
Asn Ala Pro Gly Leu Gln Leu Leu Phe Leu Val Gly Asp Asp Thr Leu
 85      90      95
Ser Arg Thr Trp Leu Lys Glu Arg Gly Asp Glu Leu Arg Asp Leu Gln
100      105      110
Ala Val Gly Leu Ala Val Asn Val Ala Ser Glu Ala Arg Leu Thr Glu
115      120      125
Ile Arg Ala Trp Gly Lys Gly Leu Gln Ile Leu Pro Ala Pro Ala Asp
130      135      140
Asp Leu Val Asp Arg Leu Gly Leu Gln His Tyr Pro Ala Leu Ile Thr
145      150      155      160
Ser Thr Ala Ile Gln Gln
165
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<210> 152

<211> 193

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 152

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Met Ala Thr Ser Val Val Arg Ala Leu Gln Leu Ala Thr Leu Leu Val
 1      5      10      15
Leu Val Asn Ile Ala Gln Ala Ala Val Asp Pro Pro Pro Ala Tyr Lys
 20      25      30
Gln Ile Ala Leu Pro Lys Gly Val Pro Ala Glu Val Leu Tyr Ser Val
 35      40      45
Ala Leu Thr Glu Ser Lys Val Leu Leu Arg Gly Glu Tyr Val Pro Trp
 50      55      60
Pro Trp Thr Leu Asn Val Ala Gly Lys Ser Tyr Tyr Tyr Ala Thr Arg
 65      70      75      80
Thr Ala Ala Cys Thr Ala Leu Leu Ala Ala Ile Asn Leu Tyr Gly Ala
 85      90      95
Lys Ser Val Asp Ser Gly Leu Gly Gln Val Asn Ile Gly Trp Asn Gly
100      105      110
His Arg Phe Ser Ser Pro Cys Glu Ser Leu Asp Pro Tyr Lys Asn Leu
115      120      125
Asp Ala Thr Ser Asp Ile Leu Ile Glu Gln Arg Asp Ala Leu Tyr Ala
130      135      140
Ser Ala Pro Gly Arg Pro Val Asp Trp Ile Gln Val Ala Gly Arg Tyr
145      150      155      160
His Arg Pro Ala Gly Gly Ala Pro Ala Ala Lys Tyr Arg Arg Thr Val
165      170      175
Ser Arg His Leu Ser Gln Val Leu Gly Val Asn Leu Leu Val Thr Asn
180      185      190
Pro
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<210> 153
 <211> 251
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 153
 Met Ile Arg Thr Val Ser Leu Leu Ser Gly Leu Met Leu Leu Leu Ser
 1 5 10 15
 Tyr Pro Ala Ala Gly Gln Glu Ala Ala Ser Arg Glu Ala Ser Ser
 20 25 30
 Gln Leu Ser Gly Ser Gln Leu Gly Thr Leu Lys Gln Gln Thr Ser Gln
 35 40 45
 Ser Asp Leu Ala Gln Glu Trp Gly Leu Asn Gln Gln Glu Trp Thr Arg
 50 55 60
 Tyr Gln Thr Leu Met Gln Gly Pro Arg Gly Ala Tyr Ser Pro Gly Ile
 65 70 75 80
 Asp Pro Leu Thr Ala Leu Gly Ile Glu Ala Arg Ser Ala Glu Glu Arg
 85 90 95
 Arg Arg Tyr Ala Asp Leu Gln Val Gln Ala Glu Arg Arg Arg Val Glu
 100 105 110
 Lys Glu Leu Ala Tyr Gln Arg Ala Tyr Asp Glu Ala Phe Ala Arg Ala
 115 120 125
 Tyr Pro Gly Glu Gly Val Ile Arg Leu Thr Glu Ser Ser Thr Ala Asn
 130 135 140
 Pro Ser Gly Thr Pro Asn Met Ser Pro Ala Leu Gln Ser Ser Gly Arg
 145 150 155 160
 Leu Ala Leu Phe Val Gln Asp Asn Cys Thr Ala Cys Ile Gln Arg Val
 165 170 175
 Arg Asp Leu Gln His Ala Glu Lys Glu Phe Asp Leu Tyr Phe Val Gly
 180 185 190
 Ser Gln Asn Asp Ala Glu Arg Val Arg Arg Trp Ala Ile Leu Ala Gly
 195 200 205
 Ile Asp Pro Lys Lys Val Arg Ser Lys Gln Ile Thr Leu Asn His Asp
 210 215 220
 Glu Gly Arg Trp Met Ala Leu Gly Leu Gly Gly Ala Leu Pro Ala Leu
 225 230 235 240
 Val Gln Glu Val Asn Gly Arg Trp Gln Arg Leu
 245 250

<210> 154
 <211> 229
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 154
 Met Lys Arg Pro Ser Pro Ala Ser Met Ile Leu Gly Leu Cys Leu Thr
 1 5 10 15
 Ala Met Ala Gly Leu Leu Ser Tyr Gln Gln Tyr Gln Leu Val Gln Leu
 20 25 30
 Arg Ser Gly Val Asp Ser Ala Ala Glu Lys Ala Ser Leu Glu Ala Ile
 35 40 45
 Leu Ala Arg Leu Ser Arg Val Asp Glu Arg Leu Asp Ala Val Asp Gly
 50 55 60
 Gln His Leu Val Ser Asn Glu Asp Phe Arg Ser Gly Gln Gln Ala Leu
 65 70 75 80

Ser Asn Arg Ile Asp Ala Ala Gln Ala Phe Ala Lys Gln Ala Ser Asp
 85 90 95
 Ala Val Glu Asn Leu Ala Gln Thr Thr Ala Ser Ala Gly Asp Leu Leu
 100 105 110
 Val Leu Lys Ala Thr Val Glu Thr Leu Asp Gly Ser Val Arg Thr Leu
 115 120 125
 Gln Glu Lys Gln Ala Lys Ala Pro Pro Leu Ile Val Pro Ala Pro Lys
 130 135 140
 Arg Pro Ile Pro Ala Lys Pro Lys Pro Lys Pro Lys Pro Met Glu Pro
 145 150 155 160
 Pro Pro Phe Ser Ile Leu Gly Val Glu Tyr Arg Gly Gly Glu Arg Phe
 165 170 175
 Leu Ser Val Ala Pro Pro Gly Ser Thr Gln Leu Ser Gln Ile Tyr Leu
 180 185 190
 Ile Arg Arg Gly Asp Ala Val Ala Gly Thr Thr Trp Arg Leu Thr Asp
 195 200 205
 Leu Asp Asp Gly Thr Ala His Phe Asp Val Ala Gly Thr Ser Arg Ser
 210 215 220
 Val Arg Ile Gln Pro
 225

<210> 155
 <211> 343
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 155
 Met Ala Glu Ala Ile Arg Lys Asp Ala Met Met Thr Lys Leu Tyr Phe
 1 5 10 15
 Asp Leu Leu Asn Ser Pro Ala Glu Ala His Ser Ser Ile Gln Lys Ser
 20 25 30
 Leu Ser Val Gln Ala Ile Ser Thr Val Pro Ile Leu Glu Phe Pro
 35 40 45
 Ser Glu Thr Val Tyr Ala Tyr Ala Ser Tyr Ile Asn Ala Leu Ser Ile
 50 55 60
 Gly Gln Arg Ile Asp Pro Ala Phe Thr Gln Ser Leu Thr Ser Ala Ile
 65 70 75 80
 Ser Asn Leu Ala Gly Arg Pro Ile Ala Val Ser Asp Ile Tyr Gln Lys
 85 90 95
 Ile His Glu Thr Thr Leu Arg Thr Pro Val Glu Met Gly Val Arg Pro
 100 105 110
 Asn Ser Ile Thr Phe Glu Glu Tyr Gln Ala Thr Ile Asn Gln Gln Ala
 115 120 125
 Ile Asn Met Val Gln Asp Met Gln Asp Gly Asp Lys Gly Glu Lys Val
 130 135 140
 Glu Ala Leu Gln Ala Asn Met Gln Phe Leu Tyr Gly Gln Glu Ile Asn
 145 150 155 160
 Thr Asp Phe Ile Ala Arg Asn Glu Leu Ala Ala Gly Gln Arg Ala Lys
 165 170 175
 Thr Val Ala Ile Val Gln Gly His Ile Thr Ile Gly Tyr Gly Phe Asp
 180 185 190
 Thr Phe Val His Glu Ala Ser Glu Leu Asn Ser Leu Asn Leu Val Gly
 195 200 205
 Ser Thr Arg Gln Lys Val Leu Pro Ala Leu Gln Leu Ser Thr Ser Asp
 210 215 220
 Pro Gly Phe Trp Ser Val Tyr Ala Leu Leu Gly Gln Ser Leu Thr Asp
 225 230 235 240
 Asp Asp Gly Leu Leu Leu Phe Ser Ala Lys Ala Arg Ala Val Val Gln

Arg	Ile	Ala	Ser	245	Asn	Gln	Phe	Ala	Gly	250	Lys	Trp	Asn	Gly	255	Leu	Pro	Pro
Ala	Ile	Lys	Thr	260	Val	Ala	Leu	Asp	265	Leu	Tyr	Tyr	Gln	Tyr	270	Gly	Gln	Thr
Gly	Asn	Phe	Pro	275	Lys	Phe	Gln	Gln	280	Ala	Ile	Asn	Ser	His	285	Asp	Trp	Pro
Ala	Val	Ile	His	290	Glu	Leu	Arg	Asn	295	Trp	Asn	Gly	Val	Pro	300	Asn	Asp	Pro
305	Leu	Gln	Phe	310	Ile	Thr	Lys	Arg	315	Leu	Glu	Arg	Ala	Lys	320	Tyr	Leu	Ala
Ile	Ser	Phe	Asn	325	Tyr	Glu	Gln		330						335			
				340														

<210> 156
 <211> 221
 <212> PRT
 <213> Pseudomonas aeruginosa

Met	Asn	Asn	Thr	Val	Ser	Glu	Thr	Gln	Gln	Ile	Asn	Ile	Tyr	Gln	Asn
1				5					10					15	
Pro	Gly	Gln	Ser	Ile	Ser	Gly	Leu	Tyr	Lys	Gly	Leu	Ala	Asn	Gln	Cys
			20					25					30		
Ser	Pro	Gly	Gln	Pro	Phe	Pro	Glu	Val	Gln	Leu	Val	Glu	Ala	Trp	Asp
		35					40					45			
Ile	Pro	Leu	Val	Leu	His	Pro	Glu	Phe	Val	Pro	Asn	Gly	Asp	Val	Ser
	50				55						60				
Lys	Ile	Asp	Lys	Glu	Tyr	Gly	Thr	Ile	Leu	Ala	Ala	Glu	Ser	Ala	Gln
65				70					75					80	
Val	Ile	Leu	Leu	Gln	Leu	Gln	Met	Ala	Gln	Asp	Lys	Ala	Lys	Ala	Cys
			85					90					95		
Gly	Glu	Val	Thr	Ala	Leu	Ile	Ser	Ser	Val	Ser	Ser	Asn	Leu	Asn	Thr
			100					105					110		
Ile	Lys	Ser	Arg	His	Gly	Ala	Asn	Tyr	Leu	Asn	Leu	Leu	Lys	Gln	Ser
		115					120					125			
Pro	Asn	Arg	Tyr	Pro	Thr	Ser	Val	Gly	Val	Glu	Ile	Met	Ser	Gly	Gly
		130				135					140				
Ser	Pro	Asn	Gln	Asp	Ser	Gly	Ile	Glu	Val	Ser	Tyr	Gly	Ala	Ser	Leu
145				150						155					160
Gly	Arg	Leu	Thr	Gln	Ser	Gln	Leu	Gln	Ala	Met	Asn	Leu	Pro	Ala	Ser
			165					170						175	
Leu	Lys	Gln	Leu	Leu	Thr	Gln	Gly	Ile	Gly	Val	Lys	Leu	Ser	Gln	Pro
			180					185					190		
Glu	Tyr	Trp	Pro	Ala	Tyr	Asn	Asn	Ile	Ala	Thr	Gly	Ile	Arg	Tyr	Thr
		195				200						205			
Thr	Gly	Val	Ala	Ile	Thr	Leu	Ala	Tyr	Trp	Ala	Thr	Val			
		210				215						220			

<210> 157
 <211> 224
 <212> PRT
 <213> Pseudomonas aeruginosa

Met	Thr	Gln	Ala	Ala	Lys	Ile	Pro	Ala	Asn	Glu	Tyr	Ser	Leu	Gly	Asp
1				5					10					15	

Gly	Arg	Gly	Tyr	Ile	Asn	Ile	Trp	Pro	Glu	Lys	Asp	Glu	Ala	Gln	Ala		
			20					25					30				
Phe	Leu	Ile	His	Asn	Asp	Gly	Pro	Asn	Gly	Ala	Thr	Cys	Ser	Leu	Lys		
		35					40					45					
Gly	Thr	Leu	Arg	Asp	Asn	Lys	Gly	Val	Val	His	Ser	Pro	Tyr	Ser	Ser		
	50				55						60						
Ala	Ser	Cys	Leu	Leu	Ser	Ile	Thr	Gln	Thr	Gly	Leu	Leu	Ser	Val	Ser		
65					70					75					80		
Val	Lys	Arg	Glu	Glu	Asn	Ser	Pro	Ser	Cys	Ser	Ala	Trp	Cys	Gly	Pro		
			85						90					95			
Arg	Val	Trp	Phe	Glu	Gly	Ala	Tyr	Ser	Val	Pro	Pro	Lys	Gly	Cys	Tyr		
			100					105						110			
Tyr	Met	Gln	Ile	Arg	Lys	Lys	Thr	Arg	Gln	Met	Leu	Gly	Met	Ile	Glu		
		115					120					125					
Lys	Lys	Glu	Leu	Asp	Ala	Ala	Arg	Ala	Leu	Ser	Asn	Lys	Leu	Leu	Ser		
	130					135					140						
Asp	Cys	Ala	Thr	Glu	Leu	Ala	Tyr	Pro	Ala	Lys	Ile	Tyr	Leu	Thr	Asn		
145					150					155					160		
Thr	Leu	Ala	Met	Ile	Ser	Ala	Glu	Lys	Gly	Glu	Asn	Ala	Arg	Cys	Leu		
			165						170					175			
Glu	Tyr	Ala	His	Arg	Val	Gln	Lys	Gln	Ile	Pro	Val	Arg	Asp	Asp	Gly		
		180						185					190				
Gln	Pro	Ala	Glu	Asp	Leu	Leu	Pro	Ala	Glu	His	Ala	Phe	Ala	Met	Glu		
		195					200					205					
Gln	Arg	Ala	Lys	Ala	Asp	Ala	Leu	Ser	Glu	Arg	Cys	Ser	Asp	Glu	Lys		
	210					215					220						

<210> 158
 <211> 81
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 158
 Val Leu Val Glu Arg Leu Pro Thr Asp Val Glu Phe Ala Gly Glu Leu
 1 5 10 15
 Ser Leu Gly Leu Ala Gly Arg Cys Pro Gln Pro Gln Gly Ser Thr Cys
 20 25 30
 Leu Ser Asp Lys Ala Ser Leu Arg Pro Arg Tyr Ala Gln Ser Leu Ile
 35 40 45
 Ser Ser Arg Tyr Arg Ala Gly Ala Ala Cys Met Leu Leu Ser Lys Pro
 50 55 60
 Ala Ala Gly Leu Phe Arg Val Ser Val Arg Pro Ile His Leu Tyr Leu
 65 70 75 80
 Gly

<210> 159
 <211> 119
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 159
 Met Asp Ile Arg Leu Glu Ile Leu Ala Leu Glu Gln Leu Leu Leu Glu
 1 5 10 15
 Pro Glu Ser Arg Lys Asn Asp Arg Leu Leu Lys Gln Leu Leu Thr Glu
 20 25 30
 Asp Phe Val Glu Phe Gly Ala Ile Gly Lys Ser Trp Thr Lys Ala Glu

		35					40					45					
Val	Ile	Val	Gly	Leu	Lys	Ser	Gln	Thr	Trp	Ile	Lys	Arg	Thr	Ile	Glu		
	50					55					60						
Asp	Phe	Lys	Leu	Arg	Val	Leu	Ala	Asp	Gly	Val	Ala	Leu	Ala	Thr	Tyr		
65					70					75					80		
Arg	Cys	Arg	His	Gln	Asn	Ala	Asn	Gly	Asp	Glu	Ser	Leu	Ser	Met	Arg		
			85						90					95			
Ser	Ser	Val	Trp	Lys	Thr	Tyr	Glu	Asp	Gly	Trp	His	Met	Val	Phe	His		
		100						105					110				
Gln	Gly	Thr	Arg	Val	Ser	Glu											
		115															

<210> 160

<211> 511

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 160

Met	Thr	Ser	Ser	Pro	Asn	Leu	Asp	Gln	Met	Thr	Pro	Glu	Gln	Leu	Arg		
1				5					10					15			
Ala	Leu	Ala	Ala	Gln	Ala	Leu	Gln	Leu	Gln	Ser	Gln	Val	Glu	Ala	Met		
		20					25						30				
Ser	Arg	Lys	Ile	Arg	Asn	Asn	Glu	Thr	Leu	Ile	Glu	Gln	Phe	Lys	Phe		
	35					40					45						
Glu	Ile	Ala	Leu	Leu	Lys	Arg	His	Lys	Phe	Ala	Lys	Arg	Ser	Glu	Gln		
50					55						60						
Ile	Ser	Ser	Ala	Gln	Gly	Ser	Leu	Leu	Asp	Asp	Leu	Leu	Asp	Thr	Asp		
65				70					75						80		
Leu	Glu	Ala	Ile	Glu	Ala	Glu	Leu	Lys	Gln	Leu	Leu	Pro	Ala	Ser	Pro		
			85					90						95			
Gln	Ala	Glu	Pro	Arg	Gln	Ser	Pro	Lys	Arg	Ser	Pro	Leu	Pro	Pro	Gln		
		100					105						110				
Phe	Pro	Arg	Thr	Val	Ile	Arg	His	Glu	Pro	Glu	Asn	Thr	Gln	Cys	Ala		
	115					120						125					
Cys	Gly	Cys	Gln	Leu	Gln	Arg	Ile	Gly	Glu	Asp	Val	Ser	Glu	Lys	Leu		
	130				135					140							
Asp	Tyr	Thr	Pro	Gly	Val	Phe	Thr	Val	Glu	Gln	His	Val	Arg	Gly	Lys		
145				150					155						160		
Trp	Ala	Cys	Arg	Gln	Cys	Glu	Thr	Leu	Ile	Gln	Ala	Pro	Val	Pro	Ala		
			165					170						175			
Gln	Val	Ile	Asp	Lys	Gly	Ile	Pro	Thr	Ala	Gly	Leu	Leu	Ala	His	Val		
		180					185						190				
Met	Val	Ala	Lys	Phe	Ala	Asp	His	Leu	Pro	Leu	Tyr	Arg	Gln	Glu	Lys		
	195					200						205					
Ile	Phe	Gly	Arg	Ala	Gly	Leu	Pro	Ile	Ala	Arg	Ser	Thr	Leu	Ala	Gln		
	210				215						220						
Trp	Val	Gly	Gln	Thr	Gly	Val	Arg	Leu	Gln	Pro	Leu	Val	Asp	Ala	Leu		
225					230					235					240		
Arg	Glu	Ala	Val	Leu	Asn	Gln	Asp	Val	Ile	His	Ala	Asp	Glu	Thr	Pro		
			245					250						255			
Val	Gln	Met	Leu	Ala	Pro	Gly	Glu	Lys	Lys	Thr	His	Arg	Val	Tyr	Val		
		260					265						270				
Trp	Ala	Tyr	Ser	Thr	Thr	Pro	Phe	Ser	Ala	Leu	Lys	Ala	Val	Val	Tyr		
	275					280						285					
Asp	Phe	Ser	Pro	Ser	Arg	Ala	Gly	Glu	His	Ala	Arg	Asn	Phe	Leu	Gly		
	290				295						300						
Asp	Trp	Asn	Gly	Lys	Leu	Val	Cys	Asp	Asp	Phe	Ala	Gly	Tyr	Lys	Ala		
305				310					315						320		

Gly	Phe	Glu	Gln	Gly	Ile	Thr	Glu	Ile	Gly	Cys	Met	Ala	His	Ala	Arg	
				325					330					335		
Arg	Lys	Phe	Phe	Asp	Leu	His	Val	Ala	Asn	Lys	Ser	Gln	Leu	Ala	Glu	
				340				345					350			
Gln	Ala	Leu	His	Ser	Ile	Gly	Gly	Leu	Tyr	Glu	Val	Glu	Arg	Gln	Ala	
		355				360						365				
Arg	Asp	Met	Ser	Asn	Glu	Asp	Arg	Trp	Arg	Ile	Arg	Gln	Glu	Met	Ala	
	370					375					380					
Val	Pro	Ile	Ser	Lys	Thr	Leu	His	Asp	Trp	Met	Leu	Ala	Gln	Arg	Asp	
385					390					395					400	
Leu	Val	Pro	Asn	Gly	Ser	Ala	Thr	Ala	Lys	Ala	Leu	Asp	Tyr	Ser	Leu	
				405					410					415		
Lys	Arg	Trp	Gly	Ala	Leu	Thr	Arg	Tyr	Leu	Asp	Asp	Gly	Ala	Val	Pro	
			420					425					430			
Ile	Asp	Asn	Asn	Gln	Val	Glu	Asn	Gln	Ile	Arg	Pro	Trp	Ala	Leu	Gly	
		435				440						445				
Arg	Ser	Asn	Trp	Leu	Phe	Ala	Gly	Ser	Leu	Arg	Ser	Gly	Lys	Arg	Ala	
	450					455					460					
Ala	Ala	Ile	Met	Ser	Leu	Ile	Gln	Ser	Ala	Arg	Met	Asn	Gly	His	Asp	
465					470					475					480	
Pro	Tyr	Ala	Tyr	Leu	Lys	Asp	Val	Leu	Thr	Arg	Leu	Pro	Thr	Leu	Arg	
				485					490					495		
Ser	Lys	Asp	Ile	Ser	Gln	Leu	Leu	Pro	His	Gln	Trp	Val	Gln	Ile		
			500					505					510			

<210> 161
 <211> 111
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 161

Met	Ile	Arg	Ile	Asp	Ala	Ile	Trp	Leu	Ala	Thr	Glu	Pro	Met	Asp	Met	
1				5				10					15			
Arg	Ala	Gly	Thr	Glu	Thr	Ala	Leu	Ala	Arg	Val	Ile	Ala	Val	Phe	Gly	
			20					25				30				
Ala	Ala	Lys	Pro	His	Cys	Ala	Tyr	Leu	Phe	Ala	Asn	Arg	Arg	Ala	Asn	
		35				40					45					
Arg	Met	Lys	Val	Leu	Val	His	Asp	Gly	Val	Gly	Ile	Trp	Leu	Ala	Ala	
	50					55				60						
Arg	Arg	Leu	Asn	Gln	Gly	Lys	Phe	His	Trp	Pro	Gly	Ile	Arg	His	Gly	
65				70					75						80	
Cys	Glu	Val	Glu	Leu	Asp	Ser	Glu	Gln	Leu	Gln	Ala	Leu	Val	Leu	Gly	
				85				90						95		
Leu	Pro	Trp	Gln	Arg	Val	Gly	Thr	Gly	Gly	Val	Ile	Ser	Met	Leu		
			100					105					110			

<210> 162
 <211> 88
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 162

Met	Arg	Gln	Arg	Ser	Ser	Tyr	Pro	Lys	Pro	Phe	Lys	Ala	Gln	Val	Val	
1				5				10					15			
Gln	Glu	Cys	Leu	Gln	Pro	Gly	Ala	Thr	Val	Ser	Ser	Val	Ala	Ile	Ser	
			20					25				30				
His	Gly	Ile	Asn	Ala	Asn	Val	Ile	Arg	Lys	Trp	Leu	Thr	Leu	Tyr	Arg	

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<210> 163
<211> 408
<212> PRT
<213> Pseudomonas aeruginosa
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-103-

Tyr Ala Pro Lys Leu Leu Gly Leu Gly Gly His Thr Val Ile Ala Asn
 355 360 365
 Gly Ile Thr Glu Ile Pro Asp Gly Asp Gly Leu Gly Glu Phe Tyr Gly
 370 375 380
 Tyr Lys Asn Ser Leu Lys Val Ser Ser Leu Ser Asn Gly Ile Gln Phe
 385 390 395 400
 Met Gly Lys His Val Ser Leu Lys
 405

<210> 164
 <211> 749
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 164
 Met Asn Ala Leu Thr Gln Pro Ala Ala Leu Ala Ala Ser His Leu Asn
 1 5 10 15
 Ile Asn Leu Thr Asp Phe Ile Asp Glu Phe Gly Asp Glu Leu Leu Glu
 20 25 30
 Ser Leu Asn Arg Ser Asn Pro Pro Val Tyr Thr Gly Ser Val Asn Ala
 35 40 45
 His Arg Gln Leu Val Met Asp Arg Leu Lys Arg Lys Pro Phe Ala Ala
 50 55 60
 Gln Ala Glu Val Val Gln Ala Ile Thr Ala Leu Leu Asp Arg Asn
 65 70 75 80
 Glu Gln Ala Gly Ile Ile Asn Ala Glu Met Gly Thr Gly Lys Thr Met
 85 90 95
 Met Ala Ile Ala Val Ala Ala Val Met His Ala Ala Gly Tyr Arg Arg
 100 105 110
 Thr Leu Val Val Ser Pro Pro His Leu Val Tyr Lys Trp Arg Arg Glu
 115 120 125
 Ile Leu Glu Thr Ile Pro Ala Arg Val Trp Val Leu Asn Gly Pro
 130 135 140
 Asp Thr Leu Leu Lys Leu Leu Lys Leu Arg Asp Gln Met Gly Asp Ala
 145 150 155 160
 Tyr Asp Gly Arg Gln Glu Phe Phe Ile Leu Gly Arg Val Arg Met Arg
 165 170 175
 Met Gly Phe His Trp Arg Leu Ala Cys Trp Lys Lys Arg Ala Ala Gly
 180 185 190
 Gly Gln Leu Leu Ala Ala Cys Pro Asp Cys Gly Gln Val Leu Glu Asp
 195 200 205
 Leu Glu Gly Asn Leu Val Thr Val Glu Glu Phe Glu Arg Gly Asp Arg
 210 215 220
 Arg Arg Thr Cys Ser Ser Cys Arg Gly Ala Leu Trp Thr Leu Ile Arg
 225 230 235 240
 Pro Gly Lys Pro Asp Gly Gly Asn Arg Arg Ala Thr Ile Leu Lys Ser
 245 250 255
 Met Cys Arg Ile Pro Thr Ile Gly Pro Val Arg Ala Glu Arg Leu Leu
 260 265 270
 Asn Asp Phe Gly Glu Asp Phe Leu Ala Thr Met Leu Val Asp Asn Val
 275 280 285
 Ser Glu Phe Ile Asn Leu Met Asp Ala Lys Gly Asn Phe Val Phe Ser
 290 295 300
 Asp Arg Gln Ala Lys Arg Met Glu Arg Ser Met Ala Asn Ile Glu Phe
 305 310 315 320
 Gly Phe Gly Glu Gly Tyr Gln Pro Thr Glu Phe Ile Lys Arg Tyr
 325 330 335
 Leu Pro Asp Gly Tyr Phe Asp Leu Leu Val Leu Asp Glu Gly His Glu

Met	Ala	Leu	Met	Phe	Pro	Arg	Leu	Ala	Arg	Asn	Phe	Ala	Arg	Asn	Gly
1				5					10					15	
Tyr	Phe	Pro	Thr	Asp	Glu	Val	Thr	Leu	Glu	Arg	Ala	Leu	Gln	Ala	Leu
			20					25					30		
Thr	Leu	Ala	Pro	Ser	Gly	Arg	Met	Arg	Ile	Cys	Asp	Pro	Cys	Ala	Gly
		35					40					45			
Glu	Gly	Val	Ala	Leu	Ala	Glu	Ala	Ala	His	Thr	Leu	Gly	Arg	Asp	Gln
	50					55					60				
Val	Gln	Ala	Leu	Ala	Val	Glu	Tyr	Asp	Arg	Glu	Arg	Ala	Asp	His	Ala
65					70					75					80
Arg	Gly	Leu	Leu	Asp	Arg	Val	Leu	His	Ser	Asp	Leu	Phe	Asp	Thr	Met
				85					90					95	
Ile	Ser	Arg	Gln	Ser	Phe	Gly	Leu	Leu	Trp	Leu	Asn	Pro	Pro	Tyr	Gly
			100					105					110		
Asp	Leu	Val	Ala	Asp	His	Ser	Gly	Ala	Ser	Gln	Tyr	Gln	Gly	Ser	Gly
		115					120					125			
Arg	Arg	Arg	Leu	Glu	Lys	Ala	Phe	Tyr	Gln	Arg	Cys	Leu	Pro	Leu	Leu
		130				135					140				
Gln	Tyr	Gly	Gly	Val	Met	Val	Leu	Ile	Val	Pro	His	Tyr	Val	Leu	Asp
145					150					155					160
Asp	Glu	Leu	Thr	Gly	Trp	Leu	Ser	Asn	His	Phe	Thr	Gly	Leu	Arg	Ile
				165					170					175	
Tyr	Ala	Ala	Ala	Asp	Pro	Thr	Phe	Lys	Gln	Val	Val	Ile	Phe	Gly	Ile
			180					185					190		
Arg	Val	Arg	Arg	Gln	Asp	Leu	Ala	Arg	Ala	Asp	Ala	Asn	Gln	Val	Arg
		195					200					205			
Ser	Arg	Leu	Gln	Ala	Ile	Gly	Ala	Gly	Gln	Glu	Lys	Ala	Glu	Glu	Ile
		210				215					220				
Pro	Ala	Ala	Trp	Pro	Trp	Glu	Pro	Tyr	Val	Val	Leu	Pro	Ala	Thr	Ser
225					230					235					240
Glu	Leu	Glu	His	Phe	Tyr	Arg	Val	Thr	Leu	Glu	Pro	Glu	Gln	Phe	Ala
				245					250					255	
Gly	Glu	Ile	Gln	Arg	Leu	Arg	Gly	Leu	Trp	Pro	Asp	Phe	Asn	Leu	His
			260					265					270		
Phe	Ala	Gln	Ala	Gly	Leu	Gln	Pro	Arg	Pro	Pro	Val	Arg	Glu	Leu	Ser
			275				280					285			
Arg	Trp	His	Leu	Ala	Leu	Ala	Leu	Ala	Ala	Gly	Ala	Ile	Ser	Gly	Val
		290				295					300				
Val	Arg	Ser	Lys	Ser	Gly	Arg	Ile	Leu	Val	Val	Lys	Gly	Asp	Thr	Tyr
305					310					315					320
Lys	Asp	Lys	Val	Arg	Lys	Thr	Glu	Phe	Thr	Glu	Asp	Asp	Asp	Gly	Asn
				325					330					335	
Ile	Thr	Glu	Val	Arg	Ile	Leu	Thr	Asp	Arg	Phe	Ile	Pro	Ile	Ile	Arg
			340					345					350		
Ala	Trp	Glu	Met	Thr	Pro	Ser	Ser	Val	Asn	Gln	Gly	Arg	Val	Leu	Thr
			355				360					365			
Ile	Ser	Ser	Ser	Ala	Ala	Thr	Thr	Glu	Glu	Ala	Glu	Glu	Pro	Gln	Pro
			370			375					380				
Glu	Pro	Ala	Pro	Ala	Pro	Ala	Pro	Leu	Leu	Ile	Ser	Pro	Gly	Arg	Val
385					390					395					400
Val	Met	Thr	Ala	Ala	Val	Ser	His	Leu	Val	Glu	Thr	Gly	Gln	Leu	Asn
				405				410						415	
Pro	Ala	Pro	Leu	Leu	Lys	Arg	His	Leu	Ala	Gly	Asp	Trp	Gly	Thr	Leu
			420					425					430		
Asp	Gln	Glu	Asp	Trp	Asn	Thr	Asn	Gln	Arg	Ala	Leu	Lys	Phe	Gly	Asp
		435				440						445			
Arg	Leu	Leu	Ser	Ser	Tyr	Asp	Ile	Asp	Ala	Gly	Asp	Glu	Ser	Arg	Leu
		450				455					460				
Trp	Ile	Ile	Thr	Glu	Ala	Asp	Arg	Ser	Ser	Thr	Thr	Leu	Leu	Leu	Pro

465
Ser Asp Tyr

470

475

480

<210> 166
<211> 201
<212> PRT
<213> *Pseudomonas aeruginosa*

<400> 166
Met Pro Ser Pro Thr Pro Leu Tyr Gln Ile Glu Glu Cys Pro Asp Leu
1 5 10 15
Tyr Val Asp Ala Cys Val Cys Asp Glu Gln Cys Asn Leu Val Phe Leu
20 25 30
Ser Ala Trp Gly Arg Asp Thr Val Thr Gln Glu Phe Leu Ala Arg Leu
35 40 45
Thr Leu Gly Arg Glu Glu Asn Gly Ile Asp His Phe His Ile Ile Val
50 55 60
Asp Gly Arg Arg Leu Pro Val Phe Pro Asn Gln Asp Leu Leu Glu Lys
65 70 75 80
Arg Thr Thr Arg Gln Phe Arg Gly Thr Leu Phe Gly Ser Leu Leu Asn
85 90 95
Leu Trp Leu Phe Asp Arg Arg Ala Ser Ala Pro Asp Arg Gly Asn His
100 105 110
Leu Ala Phe Ala Leu Leu Gln Arg Asp Glu Asp Pro His Gln Arg Leu
115 120 125
Trp Pro Leu Val Met Glu Thr Cys Pro Leu Pro Leu Leu Gln His Trp
130 135 140
Arg Glu Pro Val Met Glu Val Leu Thr Gln His Gln Met Leu Thr Ala
145 150 155 160
Leu Pro Gly Thr Ile Gly Asn Val Cys Ala Trp Arg Leu Ala Leu Arg
165 170 175
Val Asp Val Leu Glu Pro Thr Leu Gly Glu Val Ile Arg Glu Ser Ile
180 185 190
Leu Thr Thr Asp Ala Gln Ala Gln Ala
195 200

<210> 167
<211> 84
<212> PRT
<213> *Pseudomonas aeruginosa*

<400> 167
Met Asn Pro Leu Phe Thr Asn Leu Thr Gln Glu Thr Leu Ala Tyr Leu
1 5 10 15
Glu Asp Gln Leu Ser Asn Asn Asp Val Ala Gly Asp Asp Glu Leu Ile
20 25 30
Asp Leu Phe Ile Glu Glu Leu Ser Leu Thr Leu Glu Gln Ala Glu Ala
35 40 45
Ala Val Ala Leu Arg Asp Gln Tyr Leu Cys Gln Val Phe Leu Ile Gly
50 55 60
Gln Gly Pro Leu His Gln Ala Asp Gly Leu Ser Phe Asp Pro His Thr
65 70 75 80
Lys Ser Val Arg

<210> 168
 <211> 120
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 168
 Met Gly Trp Leu Phe Ser His Gln Thr Lys Glu Asp Leu Leu Arg Glu
 1 5 10 15
 Leu Leu Ala Pro Thr Ser Thr Phe Ala Gly Ser Thr Glu Val Leu Ala
 20 25 30
 His Ala Val Ser Gly Asn Glu Leu Trp Thr Val Val Lys Arg Thr Phe
 35 40 45
 His Leu Ala Gly Phe Tyr Phe Gly Lys Pro Ala Gly His Ser Ile Thr
 50 55 60
 Met Ile Glu Leu His Leu Leu Asp Cys Ser Ala Gly Gln Trp Gly Tyr
 65 70 75 80
 Lys Thr Ile Pro Glu Ser Ala Gly Pro Phe Tyr Tyr Gly Cys Pro Leu
 85 90 95
 Glu Phe Leu Asp Leu Ala His Asp Glu Ile Asn Gln Glu Trp Arg Lys
 100 105 110
 Arg Leu Thr His Glu His Gln Ala
 115 120

<210> 169
 <211> 91
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 169
 Met Lys Ser Ile Tyr Asn Thr Pro Gly Phe Ser Glu Glu Leu Leu Leu
 1 5 10 15
 Val Cys Ala Ser Leu Arg Glu Val Gly Leu Asp Asn Leu Ala Asp Gln
 20 25 30
 Phe Arg Ala Ala Val Phe Asp Arg Ser Val Val Asp Gln Ala Ile Ile
 35 40 45
 Ala Leu Arg Glu Arg Val Lys Thr Pro Ser Pro Glu His Ala Ala Asp
 50 55 60
 Asn Glu Pro Trp Leu Tyr Cys Asp Trp Gln Ala Arg Gln Thr Ala Tyr
 65 70 75 80
 Arg Leu Leu Gln Arg Leu Glu Arg Ala Thr Arg
 85 90

<210> 170
 <211> 136
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 170
 Ile Pro Ser Pro Arg Ser Arg Phe Gly Gly Ile Ile Leu Phe Ala Gly
 1 5 10 15
 His Thr Met Ile Thr Val Pro Gly Gln Leu Ala Ile Arg Thr Ile Asn
 20 25 30
 Gly Arg Tyr Gly Glu Phe Asn Val Gly Lys Leu Trp Thr Ser Ile Gly
 35 40 45
 Glu Phe Ile Ile Lys Asp Ala Phe Leu Asp Gln His Thr Glu Gly Lys
 50 55 60
 Tyr Arg Gly Asp Phe Val Ile Ala Asn Ile Arg Pro His His Tyr Ser

65					70					75				80
Ala	Gly	Gly	Arg	Leu	Val	Ile	Glu	Ile	Arg	Ala	Ile	Val	Asp	Ser
				85					90				95	Met
Thr	Leu	Asn	Asp	Met	Asp	Ser	Leu	Ser	Asp	Glu	Glu	Val	Glu	Arg
			100					105					110	Leu
Ser	Gly	Asn	Glu	Val	Asp	Pro	Leu	Asp	Glu	Val	Pro	Glu	Ile	Gln
		115					120					125		Leu
Pro	Thr	Val	Val	Pro	Ala	Ile	Pro							
	130					135								

<210> 171
 <211> 209
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 171

Met	Thr	Ser	Leu	Asn	Asn	His	Ser	Ser	Ala	Gly	His	Thr	Ala	Ala	Tyr
1				5					10					15	
Leu	Lys	Leu	Pro	Ile	Val	Leu	Thr	Asn	Ala	Ala	Trp	Leu	Arg	Leu	Val
			20					25					30		
Tyr	Leu	Ala	Asn	Pro	Ala	Arg	Val	Asp	Glu	Met	Gly	Thr	Arg	Leu	Ala
		35				40					45				
Ser	Val	Val	Gln	Thr	Ala	Trp	Gln	Glu	Leu	Ser	Leu	Gln	Pro	Thr	Ala
	50					55				60					
Lys	His	Ile	Gln	Phe	His	Leu	Tyr	His	Lys	Glu	Glu	Glu	Gly	Gln	Asp
65					70				75					80	
Arg	Ala	Leu	Ala	Leu	Leu	Val	Leu	Ser	Ile	Val	Glu	Pro	Ser	Asp	Glu
			85					90					95		
Pro	Ser	Tyr	Leu	Arg	Ile	Glu	Leu	Gln	Glu	Glu	Cys	Leu	Ala	Glu	His
		100					105						110		
Pro	Val	Thr	Glu	Pro	Lys	Ser	Pro	Ser	Pro	Gln	Lys	Ser	Lys	Pro	Leu
		115				120						125			
Cys	Leu	Ala	Ala	Thr	Arg	Asp	Ala	Pro	Phe	Gly	Met	Asp	Thr	Pro	Ala
	130					135					140				
Pro	Ala	Glu	Gln	Ala	Ala	Ser	Leu	Asp	Thr	Asp	Ala	Asp	Ala	Glu	Leu
145					150					155				160	
Phe	Gly	Thr	Val	Trp	Pro	Leu	Gly	Glu	Ile	Val	Lys	Leu	Asp	Thr	Thr
			165					170						175	
Val	Asp	Arg	Lys	Arg	Leu	Arg	Gln	Gln	Cys	Val	Arg	Leu	Gly	Ala	Leu
		180					185						190		
Gly	Tyr	Glu	Leu	Asp	Phe	Lys	Gln	Gln	Val	Trp	Thr	Arg	Lys	Glu	Ala
		195				200						205			

Ala

<210> 172
 <211> 235
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 172

Met	Thr	Gln	Leu	Asn	Pro	Phe	Ile	Arg	Gly	Tyr	Glu	Ser	Phe	Arg	Ile
1				5					10					15	
Glu	Arg	Asn	Leu	Gln	Ile	Thr	Asp	Glu	Gly	Asn	Asn	Leu	Pro	Cys	Tyr
		20						25					30		
Arg	Ala	Leu	His	Glu	Thr	Gln	Gln	His	Leu	Pro	Asp	Glu	Tyr	Phe	Gln
		35				40						45			

Cys	Glu	Leu	Cys	Tyr	Phe	Asn	Asn	Asp	Phe	Ala	Val	Val	Val	Gln	Glu
50						55					60				
Leu	Asp	Asp	Glu	Arg	Val	Glu	Lys	Cys	Pro	His	Gln	Gly	Ile	Val	Arg
65					70					75					80
Asn	Val	Leu	Tyr	Ser	Ile	Tyr	Gly	Glu	Gln	Asp	Gly	Arg	Lys	Lys	Leu
			85					90					95		
Ile	Gly	Asp	Gln	Tyr	Ser	Leu	Thr	Glu	Ala	Glu	Ser	Val	Val	Arg	Tyr
			100					105					110		
Leu	Ser	Phe	Gly	Gly	Gly	Tyr	Asn	Pro	Cys	Trp	Glu	Ile	Arg	Lys	Thr
		115					120					125			
His	Leu	Pro	Ile	Ser	Ala	Trp	Asn	Ser	Leu	Tyr	Glu	Arg	Phe	Ser	Thr
		130				135					140				
Lys	Met	Pro	Ile	Arg	Leu	Pro	Ser	Val	Leu	Val	Ser	Leu	Phe	Trp	Cys
145					150					155					160
Asn	Glu	His	Gly	Ala	Val	Gly	Phe	Arg	Leu	His	Asn	Thr	Pro	Trp	Thr
			165					170						175	
Asp	Glu	Cys	Leu	Glu	Ile	Leu	Glu	Met	Thr	Ala	Ala	Ala	Leu	Arg	Gln
			180				185						190		
Glu	Gln	Leu	Ala	Phe	Gly	Leu	Asp	Glu	His	Leu	Val	Asp	Leu	Leu	His
		195					200					205			
Leu	Ala	Gly	Gln	Ala	Asp	Ile	Arg	Leu	Leu	Val	Leu	Asp	Pro	Phe	Ala
	210				215						220				
Pro	Thr	Leu	Lys	Gly	Leu	Pro	Leu	Tyr	Asp	Asp					
225					230					235					

<210> 173
 <211> 78
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 173

Met	Gly	Leu	Val	Phe	Pro	Thr	Glu	Arg	Arg	Ile	Thr	Met	Gln	Tyr	Gly
1				5					10					15	
Lys	Leu	Ala	Leu	Ala	His	Leu	Ser	Leu	Glu	Leu	Pro	Leu	Gln	Val	Leu
		20						25					30		
Met	Asn	Lys	Asn	Arg	Ala	Tyr	Tyr	Ile	Gly	Thr	Ser	Asp	Glu	Glu	Gly
	35					40					45				
Pro	Ala	Ser	Arg	Glu	Ser	Val	Glu	Tyr	Tyr	Pro	Ser	Arg	Glu	Leu	Ala
	50				55						60				
Gln	Gln	Ala	Leu	Asp	His	Gly	Thr	Trp	Thr	Gln	Leu	Glu	Tyr		
65				70					75						

<210> 174
 <211> 88
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 174

Met	Gly	Asn	Val	Trp	Arg	Leu	Cys	Gln	Gly	Arg	Tyr	Leu	Gly	Ile	Val
1				5					10					15	
Val	Gly	Gln	Glu	Gln	Pro	Gly	Glu	Val	Ala	Glu	Leu	Thr	Ala	Glu	Gln
		20						25					30		
Gln	Leu	Val	Leu	Asp	Val	Ala	Glu	Ala	Asn	Leu	Leu	Asn	Phe	Arg	Gln
	35				40						45				
Gly	Gly	Gln	Phe	Tyr	Asp	Leu	Asp	Val	Ala	His	Asp	Asp	Leu	Gln	Ile
	50				55					60					
Met	Glu	Asn	Thr	Thr	Pro	Trp	Gly	Glu	Met	Val	Pro	Pro	Gly	Trp	Val

Met Gly Arg Pro Pro Leu Gln Leu Glu Ser Leu Asn Asp His Glu Ile
130 135 140
Ala Leu Leu Pro Ala Pro Pro Gly Ser Ala Val Ser Trp Glu Leu His
145 150 155 160
Arg Arg Thr Gln Glu Gln Tyr Gln Gln Arg Trp Gln Asp Tyr Leu Ser
165 170 175
Thr Met Thr Asp Glu Gln Val Ala Ala Leu Gly Arg
180 185

<210> 177
<211> 214
<212> PRT
<213> Pseudomonas aeruginosa

<400> 177
Met Val Phe Leu Leu Gln Val Glu Gly Ala Glu Lys Thr Leu Ala Leu
1 5 10 15
Ala Gly Lys Trp Ile Pro Arg Trp Val Ala Glu Gly Ser Phe Tyr Arg
20 25 30
Pro Arg Pro Thr Asp Arg Ala Thr Arg Ser Tyr Ala Val Leu Gly Trp
35 40 45
Ile Asn Thr Val Gly Cys Ala Ala Phe Arg Ile Arg Ala Ala Trp
50 55 60
Gly His Val Ala Asp Asn Val Ser Arg Ser Arg Val His His Arg Ser
65 70 75 80
Gly Gly Arg Lys Cys Gln Gly Gln Ala Gly Gly Gly Ala Asp Ala Ala
85 90 95
Gly Gly Glu Arg Gly Arg Lys Ser Ala Ala Gly Arg Asn Pro Val Lys
100 105 110
Gly Phe Pro Ser Arg Val Trp Lys Gly Ser Gln Val Ser His Leu Trp
115 120 125
Leu Asn Arg Arg Ser Leu Gly Ile Asp Arg Leu Asp Pro Ile Thr Arg
130 135 140
Pro Leu Ser Trp Leu Gly Gln Gln Thr Val Gly Thr His Pro Arg Thr
145 150 155 160
Lys Gly Ala Leu Arg Ile Thr Gly Gly Pro Pro Ala Gly Arg Arg Ile
165 170 175
Pro Met Gly Ser Leu Ile Val Leu Glu Gln Glu His Gln Ala Thr His
180 185 190
Gly Glu Gly Lys Arg Arg Gly Arg Asn Thr Ser Thr Thr Leu Lys Ser
195 200 205
Arg Lys His Arg Thr Ser
210

<210> 178
<211> 145
<212> PRT
<213> Pseudomonas aeruginosa

<400> 178
Met Pro Leu Met Trp Ile Val Leu Val Leu Ala Leu Ile Thr Gly Thr
1 5 10 15
Trp Leu Ser Val Gln Ser Asp His Ala Thr Ser Ser Ala Glu Leu Ala
20 25 30
Glu Val Asp Thr Leu Ala Arg Ser Leu Leu Leu Phe Arg Ser Ser Leu
35 40 45
Ala Glu Tyr Ala His Ala Asn Pro Gly Phe Thr Gly Ser Pro Ala Asp

50		55		60											
Ser	Ala	Leu	Gly	Leu	Pro	Ala	Trp	Phe	Arg	Lys	Pro	Ala	Arg	Leu	Gln
65					70					75					80
Gly	Tyr	Ile	Ala	Ala	Gly	Thr	Ser	Tyr	Ala	Phe	Ile	Ala	Ser	Pro	Pro
			85						90					95	
Ala	Gly	Leu	Ala	Ala	Ala	Val	Asp	Ala	Gly	Thr	Glu	Ser	Asp	Leu	Val
		100						105					110		
Gly	Val	Arg	Arg	Asn	Gly	Gln	Leu	Val	Thr	Arg	Arg	Leu	Gly	Ala	Thr
	115					120						125			
Val	Ile	Ala	Leu	Pro	Thr	Pro	Ile	Pro	Glu	Gly	Ala	Val	Val	Ala	Val
	130					135						140			
Lys															
145															

<210> 179
 <211> 442
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 179

Met	Arg	Ser	Thr	Arg	Ser	Ser	Gly	Phe	Ile	Ser	Ile	Glu	Leu	Met	Ile
1				5					10					15	
Ala	Leu	Val	Val	Ile	Ala	Ile	Ala	Thr	Ala	Gly	Gly	Ile	Ser	Val	Leu
		20						25					30		
Met	Ser	Tyr	Leu	Asp	Gly	Leu	Asp	Glu	Gln	His	Ala	Ala	Gln	Gln	Gln
	35					40					45				
Gln	Gln	Val	Ala	Lys	Ala	Ala	Glu	Lys	Tyr	Leu	Lys	Asp	Asn	Phe	Ser
	50				55						60				
Thr	Val	Leu	Ala	Ser	Ala	Gly	Ala	Thr	Ala	Pro	Ala	Val	Ile	Thr	Val
65				70					75					80	
Pro	Met	Leu	Arg	Asn	Thr	Arg	Tyr	Leu	Pro	Ala	Gly	Phe	Arg	Asp	Thr
			85					90					95		
Asn	Ile	Tyr	Gly	Gln	Gln	Tyr	Gln	Val	Leu	Ala	Arg	Lys	Pro	Ala	Ala
	100						105						110		
Asn	Gln	Leu	Glu	Thr	Leu	Ile	Val	Thr	Thr	Gly	Gly	Gln	Val	Ala	Ser
	115					120						125			
Glu	Leu	Ser	Ile	Arg	Arg	Ile	Ala	Gln	Leu	Met	Gly	Ala	Thr	Gly	Gly
	130				135					140					
Tyr	Ile	Ser	Lys	Thr	Asn	Thr	Ser	Ile	Ala	Gln	Gly	Ala	Ala	Trp	Gln
145				150				155						160	
Val	Ala	Leu	Ser	Asn	Phe	Gly	Ser	Ala	Pro	Gly	Ala	Gly	His	Leu	Ala
			165					170						175	
Thr	Ala	Leu	Phe	Phe	Gln	Asp	Gly	Ala	Ile	Ala	Asn	Glu	Tyr	Leu	Tyr
	180						185					190			
Arg	Asn	Ala	Val	Pro	Gly	His	Pro	Glu	Leu	Asn	Arg	Met	Asn	Thr	Thr
	195					200						205			
Leu	Asp	Met	Gly	Gly	Asn	Asn	Ile	Ala	Ala	Ala	Gly	Ala	Ile	Thr	Ala
	210				215						220				
Ser	Gly	Asn	Ile	Thr	Thr	Ser	Ala	Asp	Ile	Ser	Ala	Arg	Asn	Val	Thr
225				230					235					240	
Ala	Thr	Gly	Thr	Val	Lys	Ala	Gly	Thr	Ala	Asp	Val	Ala	Gly	Glu	Thr
			245					250						255	
Tyr	Thr	Gly	Gly	Trp	Phe	Arg	Thr	Arg	Gly	Asp	Thr	Gly	Trp	Tyr	Asn
	260						265					270			
Glu	Lys	Trp	Gly	Gly	Gly	Trp	Tyr	Met	Ser	Asp	Ser	Thr	Trp	Val	Arg
	275					280						285			
Ser	Trp	Met	Asn	Lys	Asn	Val	Tyr	Thr	Gly	Gly	Glu	Met	Lys	Ala	Gly
	290				295						300				

Lys Leu Thr Ala Glu Gly Arg Thr Glu Val Gly Glu Tyr Leu Gln Leu
 305 310 315 320
 Lys Gly Val Ala Thr Glu Gly Ala Asn Cys Ser Pro Asn Gly Leu Ala
 325 330 335
 Gly Ile Thr Ser Thr Gly Leu Trp Leu Ser Cys Gln Asn Gly Lys Trp
 340 345 350
 Gly Arg Thr Ala Ala Ser Met Arg Leu Asn Thr Thr Ala Gly Val Ile
 355 360 365
 Lys Asp Trp Cys Thr Leu His Gly Gln Asp Ser Ala Met Val Asn Tyr
 370 375 380
 Asp Tyr Val Arg Tyr Ala Ile Thr Cys Gly Gly Arg Phe Cys Ala Val
 385 390 395 400
 Gly Phe Asn Gln Thr Phe Gly Thr Asn Tyr Ser Phe Gly Leu Ile Thr
 405 410 415
 Glu Ile Gly Pro Gly Phe Asn Tyr Pro Glu Pro Tyr Lys Thr Pro Asp
 420 425 430
 Ser Thr Asn Val Thr Val Thr Cys Val Asn
 435 440

<210> 180
 <211> 313
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 180
 Val Ser Val Asn Pro Ile Ile Gln Ala Gln Phe Val Asp Leu Tyr Leu
 1 5 10 15
 Gly Glu Gly Phe Ala Asp Val Lys Gly Leu Ala Gly Ala Gly Ala Arg
 20 25 30
 Arg Val Glu Val Pro Arg Glu Trp Glu Ser His Val Gln Glu Leu Leu
 35 40 45
 Gln Ile Cys Arg Gln Thr Leu Glu Glu Leu Gln Asp Pro Glu Phe Ala
 50 55 60
 Ile Val Val Asp Gly Val Leu Leu Arg Val Thr Leu Leu Glu Asp Ala
 65 70 75 80
 Phe Ser Gly Ser Val Phe Val Leu Arg Arg Ser Ser Ala Gln Leu Arg
 85 90 95
 Glu Phe Gln Glu Ile Gly Tyr Pro Ser Glu Val Val Ser Ala Leu Met
 100 105 110
 Asp Pro Gln Leu Gln Gly Leu Val Leu Phe Cys Gly Glu Met Ala Thr
 115 120 125
 Gly Lys Thr Ser Ser Ala Ala Ser Leu Leu Leu Ala Arg Leu Gln Glu
 130 135 140
 Leu Gly Gly Val Gly Cys Ala Val Glu Asp Pro Gln Glu Thr Asn Leu
 145 150 155 160
 Ser Gly Gln His Gly Leu Gly Arg Cys Ile Gln Val Arg Thr Ser Arg
 165 170 175
 Arg Ser Gly Gly Tyr Ser Glu Ala Leu Leu Arg Thr Leu Arg Ala Gly
 180 185 190
 Ala Asp Leu Val Leu Ile Gly Glu Ile Arg Asp Glu Asp Thr Ala Tyr
 195 200 205
 Gln Ala Cys Lys Ala Ser Leu Thr Gly Ser Leu Val Ile Ala Thr Ile
 210 215 220
 His Ala Lys Ser Cys His Gln Ala Ile Glu Arg Leu Val Thr Leu Ala
 225 230 235 240
 Gln Pro Leu Ala Arg Asn Ala Tyr Asp Val Val Ala Glu Gly Ile Gln
 245 250 255
 Ala Val Ile Cys Gln Ala Leu Glu Ser Asp Gly Ser Ser Arg Arg Leu

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<210> 181
<211> 176
<212> PRT
<213> Pseudomonas aeruginosa
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<210> 182
<211> 359
<212> PRT
<213> Pseudomonas aeruginosa
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-115-

Leu	Val	Glu	Ala	Gln	Ala	Arg	Ile	Arg	Ala	Thr	Ile	Trp	Gln	Ala	Leu
	115						120					125			
Leu	Tyr	Pro	Ser	Ala	Leu	Ser	Ala	Met	Met	Val	Phe	Leu	Leu	Cys	Ile
	130						135				140				
Val	Ala	Tyr	Arg	Met	Val	Pro	Ser	Leu	Ala	Arg	Leu	Ser	Asp	Pro	Val
	145				150					155					160
Thr	Trp	Thr	Gly	Pro	Leu	Ala	Thr	Leu	Asn	Ala	Ile	Ala	Ser	Phe	Val
				165					170					175	
Thr	Gly	Pro	Gly	Ile	Tyr	Val	Leu	Val	Ala	Val	Ile	Thr	Leu	Thr	Val
			180					185					190		
Val	Val	Ile	Val	Thr	Leu	Pro	Thr	Tyr	Arg	Trp	Lys	Gly	Arg	Val	Trp
	195						200					205			
Leu	Asp	Arg	Thr	Leu	Pro	Pro	Trp	Ser	Ile	Tyr	Arg	Met	Leu	Gln	Gly
	210					215					220				
Thr	Thr	Phe	Leu	Leu	Asn	Met	Ala	Val	Met	Leu	Asn	Ala	Gly	Ile	Arg
	225				230					235					240
Pro	Tyr	Asp	Ser	Leu	Ala	Ser	Met	Ile	Lys	Ile	Ser	Pro	Pro	Trp	Leu
				245					250					255	
Lys	Gln	Arg	Leu	Glu	Ala	Ala	Arg	Tyr	Gly	Val	Gly	Leu	Gly	Gln	Asn
			260					265					270		
Leu	Gly	Val	Ala	Leu	Arg	Ser	Ala	Gly	His	Asp	Phe	Pro	Asp	Arg	Gln
	275						280					285			
Ala	Ile	Gln	Tyr	Leu	Cys	Ile	Leu	Ala	Asn	Arg	Gly	Gly	Phe	Ser	Glu
	290					295					300				
Ala	Leu	Val	Lys	Phe	Ser	Arg	Arg	Trp	Gln	Glu	Thr	Ser	Leu	Lys	Gln
	305				310					315					320
Ile	Glu	Leu	Ala	Ala	Gly	Leu	Val	Lys	Asn	Phe	Ala	Leu	Ile	Phe	Ile
				325					330					335	
Gly	Ala	Leu	Met	Ile	Leu	Val	Leu	Leu	Gly	Ala	Tyr	Gln	Ala	Gln	Gln
			340					345					350		
Leu	Ile	Gln	Ser	Met	Asn	His									
	355														

<210> 183
 <211> 526
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 183

Met	Thr	Asn	Leu	Gln	Ile	Ala	Ala	Leu	Ala	Gln	Pro	Ser	Met	Val	Thr
1				5					10					15	
Gln	Leu	Leu	Thr	Ala	Asp	Gly	Gly	Glu	Trp	Glu	Val	Ser	Lys	His	Leu
			20					25					30		
Gln	Glu	Ile	Met	Ala	Leu	Ala	Ala	Asp	Gly	Thr	Leu	Tyr	Leu	Ser	Glu
		35					40					45			
Ser	His	Gln	Asn	Asp	Ile	His	Val	Leu	Ser	Phe	Ile	Asp	Arg	Leu	Asp
	50				55					60					
Arg	Arg	Gly	Phe	Arg	Tyr	Gln	Leu	Asn	Leu	Thr	Asp	Leu	Gln	Thr	Ile
	65				70					75					80
His	Gln	Leu	Tyr	Arg	Ala	Val	Ala	Met	Asp	Gly	Leu	Val	Asp	Ser	Asp
				85				90						95	
Gly	Gln	Arg	Ala	Thr	Gln	Met	Gln	Glu	Arg	Val	Val	Lys	Ile	Ile	Arg
			100					105					110		
Lys	Ala	Thr	Glu	Leu	Arg	Ala	Ser	Asp	Val	His	Phe	Val	Val	Ser	Pro
	115						120					125			
Ala	Gly	Thr	Gly	Ser	Lys	Ile	Arg	Phe	Arg	Val	Asp	Gly	Leu	Leu	Lys
	130					135					140				
Thr	Val	Glu	Gln	Phe	Arg	Ser	Gln	Glu	Leu	His	Glu	Leu	Cys	Ala	Thr

145					150					155				160
Ile	Tyr	Gln	Ser	Met	Cys	Asp	Val	Ala	Glu	Pro	Leu	Phe	Lys	Pro
				165					170					175
Leu	Asp	Gln	Asp	Ala	Arg	Met	Ser	Gln	Thr	Phe	Val	Glu	Lys	Leu
			180					185					190	
Leu	Phe	Ser	Ala	Arg	Ile	Ala	Thr	Arg	Pro	Arg	Ala	Gly	Gly	Phe
		195					200					205		Leu
Met	Ile	Leu	Arg	Leu	Leu	Tyr	Asp	Asp	Thr	Gly	Leu	Asp	Ser	Leu
	210					215					220			Glu
Gln	Leu	Gly	Tyr	Leu	Pro	Glu	Gln	Asn	Ala	Leu	Phe	Asp	Arg	Met
225					230					235				240
Arg	Met	Pro	Tyr	Gly	Ile	Asn	Ile	Leu	Ser	Gly	Pro	Thr	Gly	Ser
			245						250					255
Lys	Ser	Met	Thr	Leu	Lys	Val	Thr	Leu	Glu	Gly	Leu	Asp	Lys	Leu
		260						265					270	His
Gly	Gly	Ser	Lys	His	Ile	Leu	Thr	Ile	Glu	Asp	Pro	Pro	Glu	Tyr
		275					280					285		Arg
Ile	Arg	Gly	Glu	Gly	Ile	Asn	Gln	Thr	Pro	Leu	Val	Tyr	Asp	Ala
	290				295						300			Thr
Asp	Pro	Asp	Ala	Glu	Arg	Gln	Ala	Trp	Ala	Ala	Gly	Ile	Ala	Asn
305					310					315				Gly
Met	Arg	Leu	Asp	Pro	Asp	Tyr	Met	Met	Ile	Gly	Glu	Val	Arg	Asp
			325						330					Leu
Phe	Ala	Ala	Val	Ala	Ala	Phe	Arg	Gly	Ala	Met	Thr	Gly	His	Gly
		340						345					350	Leu
Trp	Ser	Thr	Leu	His	Thr	Asn	Ser	Ala	Ile	Gly	Ile	Val	Gln	Arg
	355					360						365		Leu
Lys	Asp	Leu	Gly	Val	Asp	Pro	Gly	Leu	Leu	Phe	Asp	Pro	Ala	Leu
	370					375					380			Leu
Thr	Gly	Leu	Ile	Asn	Gln	Ser	Leu	Leu	Pro	Lys	Leu	Cys	Pro	His
385				390						395				Cys
Lys	Val	Arg	Phe	Gln	Asp	His	Gln	Asp	Gln	Leu	Ala	Pro	Asp	Leu
			405						410					Val
Glu	Arg	Val	Arg	Arg	Leu	Thr	Asp	Val	Ser	Gln	Val	His	Val	Lys
		420						425				430		Gly
Pro	Gly	Cys	Gln	Ala	Cys	Arg	Gly	Ser	Gly	Val	Asn	Gly	Arg	Ser
	435						440					445		Ile
Val	Ala	Glu	Val	Val	Leu	Pro	Thr	Leu	Ala	Phe	Met	Arg	Val	Phe
	450				455						460			Ala
Lys	Gly	Gly	Pro	Ala	Glu	Ala	Arg	Asn	Tyr	Trp	Val	Lys	Thr	Met
465					470					475				Gln
Gly	Ile	Thr	Lys	His	Ala	His	Ala	Ile	Arg	Arg	Ile	Asn	Glu	Gly
			485					490					495	Met
Phe	Asp	Pro	Gln	Met	Val	Glu	Asp	Phe	Ile	Gly	Pro	Leu	Asp	Phe
		500						505					510	Asp
Glu	His	Leu	Leu	Asp	Asp	Ser	Phe	Tyr	Ser	Gln	Glu	Ala	Cys	
	515						520					525		

<210> 184
 <211> 177
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 184
 Met Arg Thr Glu Pro Ile Gly Met Ala Val Ala Val Leu Phe Leu Leu
 1 5 10 15
 Ala Ser Gly Gln Ala Cys Ala Gly Thr Val Gly Glu Leu Ala Glu Ile
 20 25 30

Gln	Ala	Gln	Ala	Ile	Leu	Thr	Glu	Ala	Lys	Val	Arg	Leu	Ala	Thr	Ala	
	35						40					45				
Gln	Arg	Gln	Leu	Glu	Gly	Lys	Gly	Glu	Thr	Gly	Gln	Val	Val	Ser	Ala	
	50					55					60					
Gln	Gly	Gln	Thr	Phe	Ala	Met	Pro	Val	Pro	Ala	Ala	Pro	Pro	Thr	Ile	
65					70					75					80	
Thr	Gln	Pro	Val	Pro	Val	Val	Arg	Thr	Ile	Tyr	Gly	Ala	Gly	Gly		
			85					90					95			
Lys	Met	Thr	Ala	Thr	Phe	Leu	Phe	Pro	Gly	Gly	Tyr	Glu	Val	Asp	Ala	
		100						105					110			
Ala	Ser	Gly	Ala	Glu	Leu	Pro	Gly	Lys	Tyr	Arg	Val	Glu	Ser	Ile	Ser	
		115					120					125				
Leu	Asp	Gln	Val	Val	Leu	Thr	Asp	Lys	Asp	Gly	Asn	Arg	Val	Pro	Val	
	130					135					140					
Gly	Phe	Ser	Ser	Val	Ala	Pro	Thr	Gln	Ala	Ser	Ser	Thr	Ala	Gln	Gly	
145					150					155					160	
Ala	Ser	Val	Pro	Pro	Ala	Leu	Pro	Gly	Ala	Val	Pro	Gln	Pro	Phe	Ile	
				165				170						175		

Gln

<210> 185
 <211> 441
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 185

Met	Glu	Lys	Pro	Asp	Leu	Gly	Ser	Arg	Gly	Pro	Asp	Val	Ser	Ile	Leu	
1				5					10					15		
Ser	Tyr	His	Gly	Asn	Lys	Phe	Val	Ser	Gly	Leu	Phe	Trp	Arg	Pro	Leu	
		20						25					30			
Ser	Ser	Gln	Arg	Gln	Tyr	Met	Lys	Glu	Ala	Arg	Lys	Leu	Gly	Lys	Glu	
		35					40					45				
Glu	His	Leu	Asp	Ile	Val	Ala	Ile	Arg	His	Ser	Pro	Thr	Val	Ile	Gln	
	50					55				60						
Ala	Gly	Phe	Val	Ser	Lys	Ser	Gln	Gly	Ala	Val	Lys	Gly	Met	Tyr	Ser	
65					70				75						80	
Leu	Ala	Ser	Ala	Leu	Ser	Gly	Gln	Phe	Asp	Gly	Asp	Phe	Leu	Ala	Cys	
			85					90					95			
Trp	Lys	Val	Asp	Glu	Asp	Arg	Tyr	Ala	Leu	Val	Ala	Thr	Leu	Asp	Gly	
		100						105					110			
Ala	Ile	Val	Pro	Gly	Gln	Asp	Leu	Val	Thr	Thr	Leu	Asp	Glu	Ala	Arg	
		115					120					125				
Asp	Arg	Val	Arg	Lys	Leu	Ser	Thr	Arg	Gly	Val	Leu	Arg	Asn	Ala	Gln	
		130				135					140					
Val	Phe	Val	Pro	Glu	Gly	Phe	Asp	Phe	Pro	Val	Lys	Asp	Phe	Asp	Ile	
145					150				155						160	
Glu	Glu	Leu	Leu	Ala	Pro	Lys	Arg	Leu	Arg	Arg	Asp	Tyr	Arg	Leu	Arg	
			165					170						175		
Gln	Leu	Thr	Phe	Gly	Leu	Ser	Ala	Arg	Glu	Trp	Thr	Ala	Val	Ala	Leu	
		180						185					190			
Leu	Gly	Cys	Val	Val	Gly	Gly	Ser	Leu	Thr	Ala	Tyr	Tyr	Leu	Trp	Asn	
		195					200					205				
Ala	His	Gln	Glu	Glu	Leu	Ala	Arg	Gln	Ala	Ala	Leu	Leu	Glu	Glu	Gln	
	210					215					220					
Arg	Arg	Leu	Ala	Glu	Leu	Ala	Glu	Lys	Asn	Ala	Gln	Ala	Lys	Gln	Pro	
225					230				235						240	
Leu	Asp	Leu	Ala	Ser	Leu	Gln	Lys	Pro	Trp	Thr	Leu	Ile	Pro	Asp	Leu	

Ala	Ala	Gly	Ile	Ser	Gly	Asp	Gly	Ser	Gly	Ser	Thr	Gly	Gln	Asn	Gly
210						215					220				
Ser	Ser	Gly	Ile	Ser	Gly	Asp	Ser	Gly	Ser	Lys	Gln	Thr	Thr	Ser	Ser
225					230					235					240
Glu	Leu	Lys	Thr	Ser	Ile	Leu	Ser	Asp	Ile	Glu	Asn	Ser	Ile	Asn	Ser
				245					250					255	
Met	Leu	Thr	Pro	Ser	Met	Gly	Arg	Met	Ser	Leu	Ser	Arg	Ala	Thr	Gly
			260					265					270		
Thr	Leu	Thr	Val	Thr	Asp	Arg	Pro	Glu	Val	Leu	Asn	Arg	Val	Gln	Gln
			275				280					285			
Leu	Val	Asn	Arg	Glu	Asn	Glu	Ser	Ile	Thr	Lys	Gln	Val	Leu	Leu	Asn
			290			295					300				
Val	Asn	Val	Leu	Ser	Val	Ala	Leu	Thr	Asp	Lys	Asp	Gln	Leu	Gly	Ile
305					310					315					320
Asp	Trp	Asn	Leu	Val	Tyr	Lys	Ser	Leu	Asn	Asn	Lys	Trp	Gly	Ile	Gly
			325						330					335	
Leu	Lys	Asn	Thr	Met	Pro	Gly	Ile	Asp	Gln	Ser	Ala	Ile	Ser	Gly	Ser
			340					345					350		
Val	Ser	Ile	Leu	Asp	Thr	Ala	Asn	Ser	Ala	Trp	Ala	Gly	Ser	Lys	Ala
			355				360					365			
Met	Val	Gln	Ala	Leu	Ala	Gln	Gln	Gly	Arg	Val	Ser	Thr	Val	Arg	Ser
			370			375					380				
Pro	Ser	Val	Thr	Thr	Leu	Asn	Leu	Gln	Ser	Ala	Pro	Ile	Gln	Ile	Gly
385					390					395					400
Arg	Tyr	Asp	Ser	Tyr	Leu	Ala	Ser	Ser	Gln	Ile	Ser	Asn	Val	Ala	Gln
			405						410					415	
Val	Gly	Ser	Thr	Thr	Ser	Leu	Ile	Pro	Gly	Ala	Val	Thr	Ser	Gly	Tyr
			420					425				430			
Asn	Met	Ser	Leu	Leu	Pro	Phe	Val	Met	Glu	Ser	Gly	Glu	Met	Leu	Leu
		435				440						445			
Lys	Ile	Asn	Ile	Asn	Met	Thr	Ser	Arg	Pro	Thr	Phe	Glu	Met	Gln	Thr
	450				455						460				
Ser	Gly	Asp	Ser	Lys	Ala	Gln	Phe	Pro	Ser	Tyr	Asp	Ile	Gln	Leu	Phe
465					470					475					480
Asp	Gln	Lys	Val	Arg	Leu	Arg	Ser	Gly	Glu	Thr	Leu	Val	Leu	Ser	Gly
			485					490					495		
Phe	Asp	Gln	Thr	Thr	Glu	Asp	Thr	Asn	Lys	Val	Gly	Thr	Gly	Asp	Ala
			500				505						510		
Gly	Phe	Phe	Gly	Leu	Gly	Gly	Gly	Leu	Thr	Arg	Asn	Thr	Lys	Arg	Glu
		515				520						525			
Val	Ile	Val	Val	Leu	Ile	Thr	Pro	Val	Val	Leu	Gly				
	530					535					540				

<210> 187

<211> 374

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 187

Met	Thr	Arg	Gln	Leu	Thr	Thr	Leu	Thr	Leu	Cys	Leu	Leu	Leu	Ala	Ser
1				5					10					15	
Cys	Thr	Thr	His	Lys	Ala	Glu	Pro	Ala	Arg	Pro	Ala	Phe	Asp	Ser	Ser
			20					25					30		
Arg	Asn	Pro	Asp	Leu	Leu	Ser	Pro	Asp	Leu	Tyr	Pro	Asn	Gly	Val	Gln
		35				40					45				
Pro	Glu	Lys	Glu	Pro	Val	Val	Arg	Tyr	Gly	Arg	Tyr	Thr	Leu	Val	Ser
	50					55					60				
Thr	Gln	Pro	Asp	Ala	Gly	Gln	Arg	Asp	Leu	Met	Ala	Gln	Ile	Ile	Asp

65	Val	Thr	Ile	Pro	Ser	Ser	Met	Asn	Pro	Ser	Val	Lys	Asp	Ala	Met	Gln
					85					90					95	
	Tyr	Val	Met	Ser	Arg	Ser	Gly	Tyr	Ser	Leu	Cys	Pro	Ala	Asp	Ala	Gly
			100					105						110		
	His	Val	Asn	Ile	Leu	Tyr	Thr	Arg	Pro	Leu	Pro	Ala	Ala	Gln	Tyr	Lys
			115					120						125		
	Leu	Gly	Pro	Met	Thr	Leu	Arg	Asn	Thr	Leu	Gln	Val	Leu	Ser	Gly	Pro
			130				135					140				
	Ala	Trp	Gln	Val	Lys	Val	Asp	Glu	Val	Ala	Arg	Gln	Val	Cys	Phe	Val
	145						150				155					160
	Leu	Arg	Pro	Gly	Tyr	Gln	Leu	Pro	Pro	Ala	Pro	Arg	Pro	Lys	Pro	Val
					165					170					175	
	Gln	Gln	Leu	Tyr	Ala	Lys	Pro	Ala	Ala	Pro	Thr	Pro	Pro	Ala	Val	Ala
			180						185					190		
	Gln	Pro	Ser	Ser	Thr	Glu	Lys	Val	Ser	Thr	Leu	Glu	Ser	Pro	Ile	Val
			195					200					205			
	Val	Ala	Ser	Val	Pro	Thr	Pro	Ala	Pro	Ile	Thr	Thr	Ser	His	Ala	Pro
			210				215					220				
	Ala	Lys	Lys	Pro	Glu	Ser	Thr	Thr	Val	Leu	Pro	Pro	Ala	Ala	Pro	Ala
	225					230					235					240
	Lys	Asp	Gly	His	Pro	Ser	Ser	Pro	Pro	Ala	Ala	Ser	Ala	Pro	Thr	Lys
					245					250					255	
	Pro	Ala	Ala	Ser	Ala	Val	Lys	Ser	Thr	Pro	Pro	Thr	Pro	Pro	Thr	Val
					260				265					270		
	Ala	Ser	Ala	Pro	Pro	Val	Lys	Val	Leu	Thr	Pro	Pro	Glu	Pro	Ser	Arg
			275				280						285			
	Pro	Leu	Ala	Gln	Ala	Trp	Ser	Ala	Glu	Thr	Gly	Ser	Thr	Leu	Arg	Asp
			290				295					300				
	Thr	Leu	Glu	Ala	Trp	Ala	Lys	Arg	Ala	Arg	Trp	Thr	Val	Arg	Trp	Glu
	305					310					315					320
	Pro	Gln	Asp	Leu	Asn	Tyr	Pro	Ile	Glu	Ala	Pro	Leu	Thr	Phe	His	Gly
					325					330					335	
	Ser	Phe	Glu	Asp	Ala	Val	Ser	Glu	Leu	Phe	Pro	Leu	Tyr	Asp	Ala	Ala
					340				345					350		
	Glu	Arg	Pro	Phe	Leu	Val	Asn	Ala	Ser	Arg	Pro	Gln	Ser	Leu	Ile	Ile
			355					360					365			
	Ile	Lys	Glu	Arg	Lys	Asn										
			370													

<210> 188
 <211> 108
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 188
 Leu Ser Phe Lys Tyr Tyr Trp Ala Lys Phe Phe Trp Gly Ala Phe Phe
 1 5 10 15
 Phe Val Leu Val Ala Trp Lys Gly Ser Val Phe Pro Ser Leu Ala Ser
 20 25 30
 Val Asn Pro Leu Val Val Ala Gly Phe Ser Thr Ile Leu Phe Pro Phe
 35 40 45
 Ser Val Arg Leu Val Glu Asp Phe Ala Leu Lys Tyr Thr Glu Lys Glu
 50 55 60
 Phe Trp Val Thr Gly Phe Phe Ser Glu Thr Pro Ala Lys Thr Gly Leu
 65 70 75 80
 Tyr Ala Val Phe Tyr Leu Ala Cys Tyr Leu Phe Ser Ile Pro Leu Gly
 85 90 95

Met Ile Phe Leu Phe Tyr Lys Tyr Gly Lys Ala Ser
 100 105

<210> 189
 <211> 498
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 189
 Met Ser Asn Asp Asn Glu Val Pro Gly Ser Met Val Ile Val Ala Gln
 1 5 10 15
 Gly Pro Asp Asp Gln Tyr Ala Tyr Glu Val Pro Pro Ile Asp Ser Ala
 20 25 30
 Ala Val Ala Gly Asn Met Phe Gly Asp Leu Ile Gln Arg Asp Ile Tyr
 35 40 45
 Leu Gln Lys Asn Ile Tyr Tyr Pro Val Arg Ser Ile Val Glu Gln Gly
 50 55 60
 Thr Lys Glu Lys Lys Glu Ile Asn Lys Lys Val Ser Asp Gln Val Asp
 65 70 75 80
 Gly Leu Leu Lys Gln Ile Thr Gln Gly Lys Arg Glu Ala Thr Arg Gln
 85 90 95
 Glu Arg Val Asp Val Met Ser Ala Val Leu His Lys Met Glu Ser Asp
 100 105 110
 Leu Glu Gly Tyr Lys Lys Thr Phe Thr Lys Gly Pro Phe Ile Asp Tyr
 115 120 125
 Glu Lys Gln Ser Ser Leu Ser Ile Tyr Glu Ala Trp Val Lys Ile Trp
 130 135 140
 Glu Lys Asn Ser Trp Glu Glu Arg Lys Lys Tyr Pro Phe Gln Gln Leu
 145 150 155 160
 Val Arg Asp Glu Leu Glu Arg Ala Val Ala Tyr Tyr Lys Gln Asp Ser
 165 170 175
 Leu Ser Glu Ala Val Lys Val Leu Arg Gln Glu Leu Asn Lys Gln Lys
 180 185 190
 Ala Leu Lys Glu Lys Glu Asp Leu Ser Gln Leu Glu Arg Asp Tyr Lys
 195 200 205
 Thr Arg Lys Ala Asn Leu Glu Met Lys Val Gln Ser Glu Leu Asp Gln
 210 215 220
 Ala Gly Ser Ala Leu Pro Leu Val Ser Pro Thr Pro Glu Gln Trp
 225 230 235 240
 Leu Glu Arg Ala Thr Arg Leu Val Thr Gln Ala Ile Ala Asp Lys Lys
 245 250 255
 Gln Leu Gln Thr Thr Asn Asn Thr Leu Ile Lys Asn Ala Pro Thr Pro
 260 265 270
 Leu Glu Lys Gln Lys Ala Ile Tyr Asn Gly Glu Leu Leu Val Asp Glu
 275 280 285
 Ile Ala Ser Leu Gln Thr Arg Leu Asp Lys Leu Asn Ala Glu Thr Thr
 290 295 300
 Arg Arg Arg Thr Glu Ala Glu Arg Lys Ala Ala Glu Glu Gln Ala Leu
 305 310 315 320
 Gln Asp Ala Val Lys Phe Thr Ala Asp Phe Tyr Lys Glu Val Thr Glu
 325 330 335
 Lys Phe Gly Ala Arg Thr Ser Glu Met Ala His Gln Leu Ala Glu Gly
 340 345 350
 Ala Arg Gly Lys Asn Ile Arg Ser Ser Ala Glu Ala Ile Asn Ser Phe
 355 360 365
 Glu Lys His Lys Asp Ala Leu Asn Lys Lys Leu Ser Leu Lys Asp Arg
 370 375 380
 Gln Ala Ile Ala Lys Ala Phe Asp Ser Leu Asp Lys Gln Met Met Ala

385					390					395				400	
Lys	Ser	Leu	Glu	Lys	Phe	Ser	Lys	Gly	Phe	Gly	Val	Val	Gly	Lys	Ala
				405					410					415	
Ile	Asp	Ala	Ala	Ser	Leu	Tyr	Gln	Glu	Phe	Lys	Ile	Ser	Thr	Glu	Thr
			420					425					430		
Gly	Asp	Trp	Lys	Pro	Phe	Phe	Val	Lys	Val	Glu	Thr	Leu	Ala	Ala	Gly
		435					440					445			
Ala	Ala	Ala	Ser	Trp	Leu	Val	Gly	Ile	Ala	Phe	Ala	Thr	Ala	Thr	Ala
	450					455					460				
Thr	Pro	Ile	Gly	Ile	Leu	Gly	Phe	Ala	Leu	Val	Met	Ala	Val	Thr	Gly
465					470					475					480
Ala	Met	Ile	Asp	Glu	Gly	Leu	Leu	Glu	Lys	Ala	Asn	Asn	Leu	Val	Met
				485					490					495	
Ser	Ile														

<210> 190
 <211> 657
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 190															
Met	Asn	Arg	Pro	Arg	Leu	Val	Asn	Arg	Thr	Ser	Ala	Thr	Pro	Ser	Thr
1				5					10				15		
Leu	Leu	Gln	Arg	Ala	Ile	Phe	Asp	Gly	Tyr	Asp	Phe	Gly	Leu	Lys	Ile
			20					25					30		
Pro	Tyr	Ile	Ala	Gly	Ser	Asn	Arg	Ala	Leu	Leu	Glu	Leu	Ser	Gly	Phe
		35					40					45			
Phe	Ile	Ser	Ala	Arg	Glu	His	Pro	Leu	His	Arg	Tyr	Trp	Arg	Val	Pro
	50					55				60					
Lys	Gly	Lys	Leu	Leu	Pro	Glu	Leu	Asp	Thr	Leu	Tyr	Asn	Arg	Leu	Ala
65					70				75						80
Glu	Leu	Ala	Gly	Gly	Leu	His	Ser	Gln	Ser	Trp	Arg	Glu	Phe	Ser	Ser
			85					90					95		
Leu	Val	Glu	Ser	Ala	Gln	Ala	Ser	Leu	Asp	Arg	Gln	Ala	Phe	Thr	Trp
			100					105					110		
Gly	Met	Leu	Leu	Arg	Ile	Ala	Pro	Leu	Ala	Glu	Gly	Gly	Val	Leu	Leu
		115				120						125			
Ser	Gly	Glu	Phe	His	Pro	Gly	Val	Val	Ala	Val	Ala	Arg	Arg	Met	Arg
	130					135					140				
Gly	Val	Phe	Leu	Arg	Pro	Ser	Ser	Ser	Trp	Arg	Ile	Asp	Thr	Thr	Pro
145					150				155						160
Glu	Leu	Leu	Arg	Ser	Asn	Leu	Ile	Leu	Glu	Leu	Gly	Leu	Ala	Glu	Glu
			165					170						175	
Gln	Phe	Glu	Ile	Leu	Asp	Thr	Val	Gln	Glu	Leu	Leu	Ser	Asp	Gly	Ser
		180						185					190		
Phe	Ala	Pro	Ser	Thr	Glu	Leu	Pro	Ser	Met	Ser	Ile	Gly	Gly	Pro	Gln
		195					200					205			
Gln	Glu	Pro	Ala	Ala	Pro	Ser	Leu	Glu	Asp	Glu	Ser	Ala	Ser	Asp	Ile
	210					215					220				
Tyr	Leu	Ala	Ala	Val	Pro	Glu	Ile	Glu	Arg	Thr	Glu	Tyr	Ser	Ser	Ala
225					230					235					240
Asp	Ile	Glu	Ala	Ala	Leu	Gln	Gly	Tyr	Ser	Leu	Leu	Ala	His	Gln	Pro
			245					250						255	
Asp	Gly	Ile	Ala	His	Leu	Leu	Gln	Arg	Thr	Ser	Ala	Leu	Leu	Ala	Asp
		260						265					270		
Asp	Met	Gly	Leu	Gly	Lys	Thr	Arg	Gln	Ala	Val	Ile	Ala	Ala	Ser	Ile
		275					280						285		

Arg Ala Ala Gly Arg Pro Ile Leu Val Ile Thr Leu Ala Thr Leu Leu
 290 295 300
 Ile Asn Trp Gln Arg Glu Ile Gln Glu Val Tyr Pro Ser Ala Thr Val
 305 310 315 320
 Ala Ile Gln Gln Asp Thr Pro Glu Ala Gln Trp Ile Leu Val Asn Tyr
 325 330 335
 Glu Gln Leu Ser Pro Phe Val Ala Asn Ala Ser Arg Phe Ala Val Met
 340 345 350
 Val Ile Asp Glu Ala Gln Arg Met Lys Glu Pro Thr Ala Gln Cys Thr
 355 360 365
 Arg His Gly Phe Asp Ile Ala Ala Gln Val Pro Asn Arg Tyr Leu Leu
 370 375 380
 Thr Gly Thr Pro Val Leu Asn Arg Glu Thr Glu Leu His Thr Leu Leu
 385 390 395 400
 Arg Leu Ser Gly His Pro Ile Gly Gln Leu Pro Leu Lys Glu Phe Cys
 405 410 415
 Asp Arg Phe Ala Gly Asn Pro Glu Phe Arg Gln Ser Leu Arg Ala Glu
 420 425 430
 Leu Gly Asp Trp Met Leu Arg Arg Arg Lys Asp Val Leu Pro Ser Leu
 435 440 445
 Lys Gly Lys Gln Arg Gln Leu Leu Lys Val Ala Leu Ser Thr Glu Glu
 450 455 460
 Arg Gln Gln Tyr Asp Val Leu Arg Leu Glu Asp Arg Pro Val Phe Ala
 465 470 475 480
 Arg Leu Gly Ala Leu Arg Arg Tyr Leu Glu Thr Val Lys Val Arg Val
 485 490 495
 Ala Met Asp Leu Leu Ser Glu Leu Asp Ala Glu Asp Lys Val Ile Leu
 500 505 510
 Phe Cys Glu Phe Lys Pro Thr Val Ala Ala Leu Lys Glu Leu Cys Glu
 515 520 525
 Gln Ala Gly His Gly Cys Val Thr Leu Val Gly Asn Asp Ser Leu Thr
 530 535 540
 Lys Arg Gln Lys Ala Ile Asp Arg Phe Gln Gln Asp Pro Asp Cys Arg
 545 550 555 560
 Val Phe Ile Cys Thr Thr Ala Ala Ala Gly Thr Gly Asn Asn Leu Thr
 565 570 575
 Ala Ala Asn Tyr Val Phe Phe Leu Gly Leu Pro Trp Thr Pro Gly Gln
 580 585 590
 Gln Glu Gln Ala Glu Asp Arg Ala Tyr Arg Asn Gly Gln Leu Arg Met
 595 600 605
 Val Val Val Lys Ile Pro Leu Val Glu Ala Thr Ile Asp Glu Gln Leu
 610 615 620
 Trp Gln Leu Leu Asn Ala Lys Arg Gln Val Ala Gln Asp Leu Ile Glu
 625 630 635 640
 Pro Glu Gln Val Asp Gly Asn Arg Ala Leu Leu Ala Ala Ser Leu Thr
 645 650 655
 Gly

<210> 191
 <211> 629
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 191
 Val Ala Pro Leu Asp Asn Ala Pro Pro Ser Gly Pro Leu Gln Asp Pro
 1 5 10 15
 Ser Leu Ala Arg Tyr Ser Glu Arg Gln Leu Ala Val Ala Asn Thr Trp

Ala Glu His Ile Ala Leu Ala His Cys Ile Asp Ser Tyr Asp Gln Ala
500 505 510
Ala Tyr Arg Gly Asp Cys Arg Leu Leu Ser Val Arg Glu Ala Gly Arg
515 520 525
Pro Leu Ala Ser Ala Glu Leu Glu Leu Arg Arg Glu His Gly Glu Pro
530 535 540
Ile Gly Arg Pro Trp Ser Pro Lys His Leu Ser Thr Val Gln Leu Arg
545 550 555 560
Glu Phe Asp Asn Ala Pro Val Pro Thr Asp Ser Pro Ala Gly Gln Ala
565 570 575
Tyr Arg Trp Phe Met Glu Arg Ile Arg Ser Gly Ala Ile Ala Thr Asn
580 585 590
Leu Asn Trp Pro Asp Met Thr Val His Met Thr Arg Phe Ala Asn Gly
595 600 605
Arg Trp Lys Ala Gly Leu Ala Glu Ala Thr Ala Lys Trp Leu Leu Thr
610 615 620
Gln Leu Glu Asp Arg
625

<210> 192
<211> 156
<212> PRT
<213> *Pseudomonas aeruginosa*

<400> 192
Met Arg Lys Glu Asn Ile Ser Ala Glu Ile Thr Glu Arg Ala Phe Asp
1 5 10 15
Phe Phe Tyr Trp Phe Ser Arg Phe Glu Phe Ser Leu Lys Glu Asn Gly
20 25 30
Tyr Leu Lys Asn Tyr Lys Pro Gly Ala Arg Ala Glu Pro Gly Trp Glu
35 40 45
Asn Phe Val Gln Asn His Ser Asp Lys Tyr Ser Leu Ser Gln Ser Ala
50 55 60
Thr Ala Leu Ile Glu Gln Ser Pro Glu Gln Gln Ile Val Leu Pro Gly
65 70 75 80
Arg Glu Leu Gly Trp Arg Pro Val Lys Leu Asp Glu Asp Lys Ser Asp
85 90 95
Leu Ala Arg Val Ala Arg Leu Leu Lys Thr Val Arg Asn Asn Leu Phe
100 105 110
His Gly Gly Lys His Gly Gly Ala Asn Trp Asp Asn Pro Ala Arg Thr
115 120 125
Ile His Leu Ile Leu Leu Ser Lys Ala Ile Leu Asp Glu Phe Ala Ala
130 135 140
Leu Gly Asp Phe Glu Ala Asp Tyr Lys Arg Ile Tyr
145 150 155

<210> 193
<211> 641
<212> PRT
<213> *Pseudomonas aeruginosa*

<400> 193
Met His Ile Val Ile Ile Glu Ala Pro Gly Lys Leu Lys Lys Leu Arg
1 5 10 15
Ser Leu Leu Pro Ser Ile Arg Pro Asp Val Thr Trp Gln Val Glu Ala
20 25 30
Thr Ala Gly His Ile Arg Asp Leu Pro Val His Gly Gln Asp Pro Gln

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Ile	Ala	Leu	Leu	Glu	His	Asn	Phe	Ser	Phe	Leu	Ser	Leu	Asp	Phe	Thr
	515						520					525			
Arg	Asn	Leu	Glu	Val	Ala	Leu	Asp	Arg	Ile	Ala	Asn	Ser	Glu	Asp	Thr
	530						535					540			
Tyr	Met	Asn	Val	Val	Gln	Gln	Phe	Tyr	Gln	Leu	Leu	Gln	Thr	Glu	Leu
545					550				555						560
Gln	Thr	Leu	Arg	Ala	Leu	Pro	Ser	Ala	Gln	Asp	Glu	Pro	Arg	Ala	Ser
			565						570					575	
Ser	Thr	Ala	Ser	Ile	Ser	Ser	Ala	Pro	Thr	Ser	Asp	Phe	Leu	Cys	Gly
		580					585						590		
Lys	Cys	Gly	Leu	Pro	Leu	Val	His	Arg	Lys	Lys	Ala	Gly	Lys	Gly	Gly
	595						600					605			
Phe	Asp	Phe	Trp	Gly	Cys	Ser	Gly	Tyr	Arg	Thr	Thr	Gly	Cys	Lys	Val
610					615					620					
Ser	Tyr	Pro	Thr	Lys	Ser	Gly	Arg	Pro	Asp	Phe	Asp	Asn	Pro	Arg	Gly
625				630					635						640
Leu															

<210> 194
 <211> 77
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 194

Met	Asp	Gln	Ser	Leu	Cys	Thr	Cys	Met	Pro	Thr	Pro	Ile	Val	Asn	Pro
1				5				10					15		
Lys	Glu	Leu	Arg	Leu	Cys	His	Met	Leu	Val	Gly	Arg	Thr	Phe	Pro	Ile
		20					25					30			
Thr	Leu	Ile	Ala	Gly	Asp	His	Trp	Leu	Ser	Tyr	Asp	Gly	Ser	Ala	Trp
	35				40						45				
Trp	Val	Asp	Ala	Asp	Glu	Pro	Ala	Thr	Glu	Asp	Glu	Val	Ala	Ala	Leu
	50				55					60					
Leu	Val	Lys	Ala	Gly	Gly	Val	Thr	Thr	Cys	Trp	Cys	Gly			
65				70					75						

<210> 195
 <211> 81
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 195

Val	Ala	Arg	Ala	Ser	Glu	Ser	Glu	Ile	Ser	Thr	Ser	Thr	Arg	Cys	Ser
1				5				10					15		
Val	Ser	Lys	Arg	Ala	Thr	Asp	Thr	Asp	Lys	Leu	Asp	Arg	Arg	His	Phe
		20					25					30			
Asn	Asp	Pro	His	Arg	Thr	Val	Arg	Ala	Ile	Gly	Ala	Glu	Ala	Ala	Arg
	35				40						45				
Lys	Gly	Leu	Arg	Val	Phe	Asp	Cys	Pro	Tyr	Ser	His	Pro	Ala	Met	Arg
	50				55					60					
Ala	Ser	Trp	Leu	Lys	Gly	Phe	Ala	Gln	Glu	Gln	Gln	Gln	Gln	Leu	Asp
65				70					75						80
Phe															

<210> 196

<211> 156
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 196
 Met Ala Thr Pro Val Phe Trp Glu Ala Asn Ile Gly Ser Ala Pro Glu
 1 5 10 15
 His Arg Ser Phe Pro Asn Gly Asn Asn Pro Pro Arg Gln Leu Leu Arg
 20 25 30
 Leu Asn Val Met Phe Asp Asn Ser Ile Pro Asp Gly Gln Gly Gly Tyr
 35 40 45
 Lys Asp Arg Gly Gly Phe Trp Cys Ser Val Glu Trp Trp His Gln Asp
 50 55 60
 Ala Gln Arg Phe Ala Glu Leu Phe Thr Lys Gly Met Arg Val Lys Val
 65 70 75 80
 Glu Gly Arg Ala Ile Met Asp Arg Trp Pro Asp Lys Glu Ser Gly Glu
 85 90 95
 Glu Val Gln Ala Leu Lys Val Glu Ala Ser Arg Ile Ser Ile Leu Pro
 100 105 110
 His Arg Leu Ala Glu Val Thr Leu Leu Pro Thr Gln His Gln Gln Ser
 115 120 125
 Arg Asn Val Pro Gln Gln Pro Ala Gln Gln Asp Ala Gln Ser Gln Gln
 130 135 140
 Asp Tyr Asp Ser Ala Phe Asp Asp Asp Ile Pro Met
 145 150 155

<210> 197
 <211> 177
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 197
 Met Arg Gln Leu Asp Lys Asp Gln Gln Gly Ala Leu Glu Gln Ser Ala
 1 5 10 15
 Phe Arg Pro Leu Gln Gln Thr Ala Phe Gln Ala Leu Gln His Ser Ala
 20 25 30
 Ser Leu Lys Gly Leu Leu Lys Pro Phe Lys Gly Asn Arg Glu Leu Ala
 35 40 45
 Gln Leu Ala Glu Gln Cys Glu Ala Met Glu Gln Gly Leu Leu Glu Leu
 50 55 60
 Ala Gln Gly Leu Leu Ala Gln Val Arg Arg Pro Pro Phe Thr Leu Leu
 65 70 75 80
 Pro Thr Arg Leu Ile Glu Gln Arg Thr Ser Ala Arg Thr Thr Phe Leu
 85 90 95
 Arg Trp Gln His Ile Ala Ser Arg Arg Met Gly Val Gly Val Trp Thr
 100 105 110
 Glu Met Leu Arg Gln Asp Lys Thr Pro Glu Tyr Leu Leu Gln Asp Leu
 115 120 125
 Tyr Glu Met Glu Leu Gln Arg Ile Thr Leu Asn Met Gln Ile Ser Leu
 130 135 140
 Ile His Ser Ile Gly Lys Gln Ala Ala Glu Cys Ala Glu Lys Met Gly
 145 150 155 160
 Gln Ala Glu Ala Glu Phe Met Gly Arg Leu Gln Gln Ser Thr Asn His
 165 170 175
 His

<210> 198
 <211> 242
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 198
 Met Ala Glu Thr His Arg Leu Gln Ile Gly Ser Leu Arg Ser Asp Val
 1 5 10 15
 Ala Leu Thr Leu His Thr Tyr His Ala Ala Arg Ile Trp Thr Gly Arg
 20 25 30
 Gln Lys Ser Asp Ala Lys His Ser Ile Leu Gly Leu Ser Gly Phe Cys
 35 40 45
 Ala Tyr Val Asn Arg Met His Arg Gly Ala Ala Gln Asp Asp Pro Tyr
 50 55 60
 Ser Asp Trp Trp Leu Val Gln Ile Glu Glu Lys Val Glu Ser Cys Gln
 65 70 75 80
 Ala Ala Leu Glu Ala Ile Asp Gln Arg Leu Asp Asp Val Met Ala Lys
 85 90 95
 Leu Pro Ala Thr Leu Asp Ile Ser Glu Asn Leu Ser Val Thr Pro Val
 100 105 110
 Lys Val Pro Leu Phe Ile Ser Asn Pro Leu Gly Phe Lys Ala Val Tyr
 115 120 125
 Leu Leu Thr Asn Tyr Asp Glu Leu Ala Arg Arg Ile Leu Leu Ala Gln
 130 135 140
 His Val Gly Leu Val Gly Arg Arg Asp Met Glu Val Trp Leu Asp Glu
 145 150 155 160
 Gly Ala Ser Val Leu Arg Ser Leu Phe Gly Leu Ala Gln Ser Tyr Gln
 165 170 175
 Phe Ser Gly Ala Thr Arg Asp Asp Phe Ala Ala Asn Asn Ala Arg Ala
 180 185 190
 Glu Ala Ala Arg Lys Met Tyr Glu Lys Phe Gly Glu Ile Pro Gln Asp
 195 200 205
 Ile Leu Glu Gly Thr Arg Arg Ser Asn Phe Ala Pro Pro Ile Thr Arg
 210 215 220
 Gly Arg Ser Asp Gly Asp Ala Asp Asp Ala Asp Arg Val Glu Leu
 225 230 235 240
 Glu Asp

<210> 199
 <211> 79
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 199
 Met Phe Leu Ser Met Ala Pro Phe Phe Leu Val Val Leu Val Leu Ser
 1 5 10 15
 Ala Leu Phe Thr Asp Ala Trp Asn Asp Arg Glu Leu Arg Leu Leu Leu
 20 25 30
 Met Leu Ile Val Phe Gly Tyr Ser Val Thr Val Leu Thr Ile Thr Val
 35 40 45
 Glu Met Tyr Arg Phe Glu Met Ala Glu Lys Ala Met Trp Gly Ala Leu
 50 55 60
 Cys Asn Lys Ala Asn Tyr Met Asn Cys Gln Pro Asp Tyr Gln Arg
 65 70 75

<210> 200

<211> 91
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 200
 Met Arg Lys Ser Arg Ser Gly Val Val Phe Phe Gly Asp Ala Ala Arg
 1 5 10 15
 Ile Thr Leu Pro Gly Pro Asp Leu Arg Ala Ala Gly Glu Leu Gly Asp
 20 25 30
 Ser Thr Gly Ile Thr Pro Pro Gly Ala Asp Leu Arg Ala Ala Gly Glu
 35 40 45
 Leu Gly Asp Ser Thr Gly Ile Thr Leu Pro Gly Ile His Phe Gly Ile
 50 55 60
 Gly Gly Lys Met Gly Val Ser Gly Arg Asn Thr Ser Pro Lys Arg Gly
 65 70 75 80
 Ile Thr Thr His Glu Leu Lys Gln Cys Ser
 85 90

<210> 201
 <211> 441
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 201
 Met Arg Leu Ser Arg Phe Pro Ile Ser Thr Leu Leu Asp Ser Ala Ser
 1 5 10 15
 Gly His Leu Glu Ala His Leu Tyr Lys Lys Arg Leu Ala Ala Glu Ser
 20 25 30
 Gly Glu Pro Leu Ala Gln Gln Tyr Ser Gly Ile Ile Phe Ser Gly Asn
 35 40 45
 Pro His Glu Thr Val Pro Arg Arg Leu Leu Leu Asp Lys Arg Leu Thr
 50 55 60
 Pro Leu Glu Arg Asn Cys Trp Gln Val Phe Arg Leu Leu Ile Asn Asp
 65 70 75 80
 Asp Gly Leu Thr Ala Phe Pro Thr Tyr Glu Gln Leu Arg Pro Tyr Leu
 85 90 95
 Gly Met Gln Pro Gly Lys Ile Ala Ser Arg Glu Thr Ile Ala Lys Ala
 100 105 110
 Leu Thr Val Leu Arg Leu Thr Arg Trp Leu Ser Leu Gly Arg Arg Leu
 115 120 125
 Arg Asn Asp Leu Asn Gly Gln Val Gln Gly Asn Val Tyr Ile Leu His
 130 135 140
 Asp Glu Pro Val Ser Pro Ala Glu Ala Leu Glu Leu Asp Thr Asp Tyr
 145 150 155 160
 Met Gln Leu Leu Ser Gln Ser Thr Gly His Gly Asn Arg Ala Ile Arg
 165 170 175
 Glu Ile Gly Gln Ile Ile Trp Arg Glu Phe Arg Asp Asp Pro Asp Val
 180 185 190
 Gly Arg Arg Leu Pro Thr His Leu Glu Lys Leu Glu Gly Arg Leu Asn
 195 200 205
 His Gln Gln Trp Ala Ile Asp Ser Gln Leu Glu Ala Asp Pro Ala Ala
 210 215 220
 Glu Phe Gly Ile Arg Thr Leu Ser Asp Leu Pro His Ser Thr Pro Ser
 225 230 235 240
 Ser Asp Ala Glu Leu Ser Glu Ile Ser Gly Lys Gln Cys Ala Leu Pro
 245 250 255
 Leu Ser Ser Asp Thr Glu Pro Arg Gln Asn Pro Pro Ser Thr Pro Leu
 260 265 270

Val	Arg	Met	Pro	Asn	Ser	Tyr	Ser	Thr	Tyr	Thr	Tyr	Lys	Gln	Asp	Ser
		275					280					285			
Val	Cys	Lys	Lys	Pro	Val	Gln	Pro	Arg	Ala	Arg	Glu	Glu	Ala	His	Pro
		290				295					300				
Asn	Trp	Gln	Asp	Leu	Leu	His	Ala	Leu	Glu	Ala	Glu	Gln	Arg	Ile	Gln
305					310					315					320
Ala	Val	Ser	Ala	Leu	Arg	Arg	Val	Ser	Glu	Asp	Leu	Arg	Leu	Pro	Ile
				325					330					335	
Ile	Glu	Gln	Trp	Gln	His	Arg	Cys	Ala	Gly	Gly	Thr	Val	Ser	Asn	Pro
			340					345					350		
Phe	Gly	Tyr	Leu	Met	Thr	Leu	Ile	Gln	Arg	Ala	Val	Gln	Gly	Lys	Phe
		355					360					365			
Asn	Ala	Ser	Trp	Ala	Pro	Glu	Glu	Pro	Ala	Glu	Arg	Thr	Ile	Pro	Ala
		370				375					380				
Thr	Glu	Arg	Pro	Ile	Arg	Ala	Pro	Ala	Pro	Ser	Ser	Pro	Ile	Ala	Pro
385					390					395					400
Thr	Gln	Pro	Gln	Val	Gln	Pro	Arg	Gly	Asp	Thr	Arg	Thr	Gly	Ser	Glu
				405					410					415	
Val	Leu	Ser	Arg	Leu	Lys	Asp	Leu	Ile	Arg	Pro	Arg	His	Gly	Ser	Ser
			420				425						430		
Val	Pro	Ser	Glu	Arg	Gly	Asp	Asp	Ser							
		435					440								

<210> 202

<211> 255

<212> PRT

<213> Pseudomonas aeruginosa

<400> 202

Met	Ser	Lys	Ser	Thr	Ile	Asn	Glu	Ala	Val	Leu	Thr	Gln	Val	Leu	Asn
1				5					10					15	
His	Leu	Arg	Asn	Gly	Gln	Leu	Arg	Arg	Cys	Ala	Glu	Met	Gly	Leu	Arg
			20					25					30		
Pro	Glu	Ile	Leu	Ala	Gln	Leu	Gln	Gln	Pro	Ala	Val	Met	Ser	Ile	Leu
		35				40						45			
Thr	Asn	Thr	Pro	Val	Ser	Trp	Val	Asp	Val	Arg	Val	Asn	Ile	Asp	Val
	50					55					60				
Met	Glu	Lys	Ile	Leu	Ala	Thr	Ala	Glu	Arg	Ser	Ala	Gln	Glu	Asp	Leu
65				70					75					80	
Gln	Ile	Glu	Arg	Ala	Leu	Lys	Leu	Gly	Ala	Thr	Thr	Thr	Met	Ile	Gln
				85				90					95		
Ser	Phe	Phe	Gly	Leu	Ser	Pro	Glu	Asp	Thr	Ala	Thr	Lys	Arg	Leu	Met
			100					105					110		
Leu	Glu	Ile	His	Pro	Arg	Arg	Gly	Arg	Trp	Arg	Gln	Leu	Asp	Glu	Gln
		115					120					125			
Ile	Glu	Arg	Gln	Ile	Trp	Phe	Arg	Trp	Glu	His	Leu	Met	Gln	Glu	Asn
	130					135					140				
Gln	Val	Arg	Leu	Glu	Asp	Ser	Met	Glu	Leu	Leu	Asp	Ile	Ala	Met	Ile
145					150					155					160
Leu	Thr	Glu	Glu	Ile	Asn	Ala	Gly	Ile	Glu	Gln	Asp	Ser	Pro	Glu	Phe
				165					170					175	
Ile	Ser	Leu	Ala	Ile	Val	Trp	Ser	Leu	Ile	Gln	Ser	Trp	Leu	Lys	Asp
			180					185					190		
Gly	Leu	Tyr	Pro	Ser	Gly	Lys	Ser	Ser	Gln	Ser	Gln	Ala	Gly	Leu	Gln
		195					200					205			
Lys	Ser	Gln	Ser	Thr	Leu	Tyr	Leu	Ala	Ser	Val	Ser	Ser	His	Leu	Pro
		210				215					220				
His	Ser	Ala	Pro	Ser	Ala	Thr	Thr	Gln	Val	Asn	Ala	Glu	Thr	Glu	Arg

225		230		235		240								
Gln	Gln	Leu	Leu	Asn	Leu	Val	Gln	Ser	Glu	Gly	Asp	Thr	Ala	Pro
				245					250					255

<210> 203
 <211> 579
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 203

Met	Ser	Met	Ala	Lys	Ile	Asn	Pro	Gln	Asp	Leu	Lys	Asp	Arg	Leu	Leu
1				5					10					15	
Ala	Pro	Gly	Phe	Thr	Ala	Pro	Pro	Lys	Val	Leu	Glu	Gln	Leu	Ser	Asp
			20					25					30		
Pro	Ile	Ser	Asp	Thr	Pro	Met	Arg	Leu	Thr	Leu	His	Asp	Val	Leu	Pro
		35					40					45			
Trp	His	Asp	Asn	Pro	Arg	Thr	Thr	Arg	Asn	Pro	Lys	Tyr	Asp	Glu	Leu
	50					55					60				
Lys	Glu	Ser	Ile	Arg	His	Arg	Gly	Leu	Asp	Thr	Pro	Pro	Pro	Val	Thr
65				70					75					80	
Arg	Arg	Pro	Gly	Glu	Asp	Lys	Tyr	Arg	Ile	Arg	Asn	Gly	Gly	Asn	Thr
			85					90					95		
Arg	Leu	Glu	Ile	Leu	Asn	Asp	Leu	Tyr	Lys	Glu	Thr	Gly	Asp	Glu	Arg
			100					105					110		
Tyr	Phe	Ser	Phe	Asp	Cys	Leu	Phe	Lys	Pro	Trp	Asp	Lys	Gln	Arg	Gly
		115					120					125			
Glu	Ile	Ile	Ala	Leu	Thr	Gly	His	Leu	Ala	Glu	Asn	Asp	Leu	Lys	Gly
	130					135					140				
Asp	Leu	Lys	Phe	Ile	Glu	Arg	Ala	Val	Gly	Val	Gln	Lys	Ala	Lys	Phe
145				150					155					160	
Leu	Tyr	Glu	Gln	Glu	Asn	Gly	Gly	Glu	Ser	Ile	Ser	Gln	Arg	Glu	Leu
			165					170						175	
Ala	Arg	Arg	Leu	Lys	Ala	Asp	Gly	Tyr	Pro	Val	Ser	Gln	Ser	His	Ile
			180					185					190		
Ser	Lys	Met	Leu	Asp	Thr	Ile	Glu	Val	Leu	Ala	Pro	Ala	Ile	Pro	Val
		195					200					205			
Met	Leu	Tyr	Ser	Gly	Leu	Gly	Lys	Pro	Gln	Ile	Glu	Lys	Leu	Leu	Ser
	210					215					220				
Leu	Arg	Lys	Ser	Ala	Ser	Ser	Cys	Trp	Ala	Arg	Leu	Tyr	Ala	Gly	Glu
225				230					235					240	
Gly	Val	Asp	Phe	Glu	Met	Leu	Phe	Gln	Asp	Thr	Leu	Ala	Ile	Phe	Asp
			245					250						255	
Ser	Ser	Pro	Asp	Glu	Phe	Ile	Phe	Glu	Arg	Phe	Gln	Asp	Glu	Leu	Ile
			260					265					270		
Asp	Gln	Met	Lys	Arg	Pro	Leu	Gly	Leu	Arg	Tyr	Asp	Gln	Ile	Leu	Leu
		275					280					285			
Glu	Ile	Thr	Asn	Gly	Gln	Gln	Glu	Gln	Arg	Arg	Gly	Thr	Leu	Val	Asp
	290					295					300				
Leu	Pro	Thr	Pro	Ala	Ala	Pro	Pro	Gln	Leu	Pro	Pro	Ile	Gly	Gln	Glu
305				310					315					320	
Asn	Pro	Ala	Ala	Ser	Ser	Thr	Gly	Gln	Ala	Gln	Thr	Gln	Ser	Pro	Ala
			325					330						335	
Ala	Asp	Pro	Gln	Thr	Ser	Arg	Thr	Arg	Ser	Asn	Pro	Gly	Asn	Pro	Leu
			340					345					350		
Pro	Pro	Pro	Ala	Pro	Pro	Pro	Pro	Val	Gln	Gln	Lys	Gln	Leu	Pro	Asp
		355					360					365			
Glu	Glu	Arg	Ala	Ala	Val	Leu	Ala	Gly	His	Ile	Val	Ser	Pro	Val	Ser
	370					375					380				

Thr Lys Ile Gln Gln Thr Arg Gln Arg Leu Ala Gly Leu Glu Gly Glu
 385 390 395 400
 His Leu Pro Val Phe Asp Glu Thr Ala Leu Gln Ala Ile Pro Val Gln
 405 410 415
 Val Gly Gly Leu His Pro Ile Thr Asp Leu Trp Tyr Ile Glu Arg Ser
 420 425 430
 Ile Asp Thr Pro Glu Ile Leu Arg Gln His Ile Ala Asp Leu Ala Glu
 435 440 445
 Glu Ile Ala Leu His Val Gly Ala Pro Gly Glu Ile Val Arg Ile Gln
 450 455 460
 Gly Gly Val Gly Tyr Thr Tyr Arg Glu Pro Asn Glu Asp His Glu Ile
 465 470 475 480
 Thr Asp Ser Ala Leu His Leu Met Thr Leu Leu Gln Ala Val Ser Gly
 485 490 495
 Gln Val Gln Val Val Leu Asn Thr His Asp Gln Gln Thr Cys Arg Asp
 500 505 510
 Ala Leu Gly Glu Phe Gln Phe Ser Ala Gly Leu Ala Gln Leu Leu Leu
 515 520 525
 Gly Gln Pro Thr Thr Ser Asp Lys Pro Ser Cys Gln Ala Gly Arg Leu
 530 535 540
 Asn Asp Glu Ala Leu Val Lys Leu Phe Arg Ile Ile Arg Leu Ala Arg
 545 550 555 560
 Arg Leu Val Asp Leu Glu Leu Pro Pro Ala Ala Ser Glu Gln Ala Ala
 565 570 575
 Thr Asp Gln

<210> 204
 <211> 84
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 204
 Met Thr Met Ala Arg Glu Thr Glu Asp Lys Phe Val Val Arg Met Pro
 1 5 10 15
 Leu Gly Leu Arg Asp Gln Leu Lys Gln Lys Ala Ala Asp Asn His Arg
 20 25 30
 Ser Ala Asn Ser Glu Ile Val Tyr Arg Leu Glu Arg Ser Asn Ala Leu
 35 40 45
 Glu Glu Glu Leu Ala Arg Ala Asn Arg Met Val Asp Glu Leu Phe Ala
 50 55 60
 Lys Asn Gln Arg Leu Gln Ala Glu Leu Ala Ala Ala Asn Thr Pro Gln
 65 70 75 80
 Val Ala Glu Ala

<210> 205
 <211> 338
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 205
 Met Pro Ile Lys His Ala Ile Val His Leu Ile Glu Lys Lys Pro Asp
 1 5 10 15
 Gly Thr Pro Ala Val Leu His Ala Arg Asp Ala Glu Leu Gly Asp Ser
 20 25 30
 Gln Ala Ile Glu Asn Leu Leu Ala Asp Leu Asn Glu Ser Tyr Asn Ala

<210> 207
 <211> 164
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 207
 Met Pro Asp Val Thr Ala Tyr Arg Pro Leu Glu His Phe Gln Lys Val
 1 5 10 15
 Glu Leu Met Leu Glu Leu Lys Leu Arg Glu Gly Pro Ser Trp Ile Cys
 20 25 30
 Leu Asn Cys Gly Tyr His Leu Asp Gly Ser Gly Ala Gln Pro Cys Pro
 35 40 45
 Asp Cys Gly Lys Ser Arg Tyr Trp Thr Ser Gly Trp Ser Val Gly Arg
 50 55 60
 Gly His Arg Phe Ser Ala Ala Arg Glu Glu Trp Glu Asn Arg Leu Arg
 65 70 75 80
 Thr Arg Ser Arg Ser Pro Val Ala Ser Thr Ala Pro Val Ala Thr Asp
 85 90 95
 Asp Val Cys Thr Gln Leu Arg Thr Glu Val Arg Met Leu Arg Ser Ala
 100 105 110
 His Asp Asp Leu Ala Cys Ser Arg Gln Ser Asp Arg Arg Ser Leu Gln
 115 120 125
 Ala Leu Val Lys Arg Leu Leu Asp Ala Ala Ala Thr Asp Ser Leu Pro
 130 135 140
 Arg Ser Leu Ala Glu Met Glu Thr Trp Leu Gln Leu Asn Ser Glu Glu
 145 150 155 160
 Thr Thr Asn Ala

<210> 208
 <211> 85
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 208
 Met Lys Ala Ser Gln Thr Tyr Gln Cys Ile Val Lys Phe Asp Gly Ala
 1 5 10 15
 Gly Phe Trp Thr Asn Thr Ile Gln Lys Gln Arg Ala Thr Cys Thr Trp
 20 25 30
 Ser Asp Lys Val Ala Ala Ser Arg Leu Ala Glu Arg Leu Phe Gly Glu
 35 40 45
 Asp Asn Ala Tyr Ile Thr Arg Met Pro Val Gln Ala Gly Asp His Glu
 50 55 60
 Lys Arg Ile Glu Ser Arg Trp Ala Leu Ser Cys Arg Asn Pro Lys Glu
 65 70 75 80
 Val Ala Arg Asp Ala
 85

<210> 209
 <211> 175
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 209
 Met Asn Thr Glu Ala Arg Phe Pro Ser Ile His Ala Ser Ala Ala Phe
 1 5 10 15
 Thr Asp Ser Ala Val Val His Ala Asn His Val Gly Val Asn Pro Ile

<210> 211
 <211> 233
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 211
 Met Asp Lys Gln Lys Val Leu Ala Lys Val Glu Lys Leu Met Ala Leu
 1 5 10 15
 Ala Asn Ala Lys Gly Ala Thr Pro Asn Glu Ala Glu Thr Ala Leu Arg
 20 25 30
 Gln Ala Ala Ile Leu Lys Arg Gln Phe Asp Leu Ser Asp Ala Glu Ile
 35 40 45
 Ser Ala His Thr Val Glu Thr Ala Cys Val Pro Thr Arg Thr Arg Arg
 50 55 60
 Ser Pro Ala Pro Trp Leu His Glu Leu Ala Gly Ile Cys Ala Ser Ser
 65 70 75 80
 Phe Gly Cys Asp Tyr Leu Ala Ala Tyr Ala Met Pro Ala Gly Trp Thr
 85 90 95
 Phe Lys Phe Met Gly Arg Gly Ile Gly Pro Glu Leu Ala Ala His Ala
 100 105 110
 Tyr Ser Thr Leu His His Gln Leu Val Ala Ala Arg Ser Ala His Val
 115 120 125
 Ala Gln Gln Lys Arg Cys Lys Leu Ser Thr Lys Arg Arg Arg Ser Lys
 130 135 140
 Leu Phe Val Glu Gly Trp Leu Leu Ala Val Arg Ser Leu Val Arg Glu
 145 150 155 160
 Phe Ala Gly Arg Pro Asp Glu Ser Thr Gln Ala Ala Ile Lys Ala Tyr
 165 170 175
 Leu Glu Leu His His Pro Ala Leu Lys Tyr Leu Glu Pro Ala Ala Leu
 180 185 190
 Thr Lys Ala Leu Ala Tyr Asp Gln Ala Ser Leu Gln Ala Gly Trp Glu
 195 200 205
 His Gly Lys Asn Thr Arg Leu His Arg Gly Val Ser Arg Arg Val Gln
 210 215 220
 Gly Ala Leu Glu Gln Gly Gly Ser Gln
 225 230

<210> 212
 <211> 228
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 212
 Met Ser Asp Pro Lys Leu Lys Pro Cys Pro Leu Cys Gly Ser Thr Asn
 1 5 10 15
 Ile Arg Met Leu Glu Pro Glu Leu Leu Asp Thr Asp Ala Trp Asn Cys
 20 25 30
 Ala Ile Glu Cys Leu Asp Cys Gln Val His Ile Gly Pro Ser Tyr Cys
 35 40 45
 Glu Pro Asp Pro Val Thr Ala Arg Tyr Ser Ala Gln Ile Asp Trp Asn
 50 55 60
 Arg Arg Pro Ser Ala Lys Asn His Ala Asp Glu Arg Glu Gln Phe Leu
 65 70 75 80
 Met Ala Asn Leu Leu Ala Ala Leu Glu Val Ala Leu Gly Asp Val Ala
 85 90 95
 Ala Leu Ala Ile Val Asp Arg Val Arg Gln Ala Thr Asp Arg Ile Tyr
 100 105 110
 Pro Thr Ser Asn Leu Ser Pro Val Pro Gln Ala Trp Leu Asp Val Gln

Leu Leu Gln Asp Ala Ala Arg Leu Leu Asp Ser Val Asn Lys Gln Ile
 50 55 60
 Glu His Ala Lys Glu Lys Arg Asp Arg Tyr Glu Lys Lys Ala Lys Lys
 65 70 75 80
 Arg Arg Glu Leu Arg Glu Arg Leu Ala Lys Gln Leu Val Ala Ser Asn
 85 90 95
 Tyr Pro Leu Pro Gly Asn Thr Leu Glu Asp Arg Leu Glu Ile Leu Gln
 100 105 110
 Ile Ala Leu Ile Tyr Asn Arg Ala Arg Val Phe Asp His Leu Tyr Ser
 115 120 125
 Thr His Gln Leu His Ser Lys Leu Lys Arg Trp Leu Glu Arg Pro Lys
 130 135 140
 Gln Leu Ile Gly Trp Arg Ser Glu Ala Glu Tyr Phe Ala Ser Gln Val
 145 150 155 160
 Gly Ser Leu Arg Cys Asp Phe Ile Ser His Leu Thr Asn Glu Ile Ala
 165 170 175
 Tyr Asp Asp Gly Ser Glu Val Glu Glu Arg Leu Arg Val Ile Lys Gln
 180 185 190
 Lys Val Ala Asp Cys Thr Ala Gln Ile Ala Leu Thr Ser Glu Glu Gln
 195 200 205
 Glu Thr Leu Arg Leu Trp Thr Asp Ala Leu Gln Ser Ala Pro Glu Gly
 210 215 220
 Leu Ile
 225

<210> 215
 <211> 309
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 215
 Met Asn Ala Lys Ala Thr Ser Val Val Ser Thr Lys Gly Gly Val Gly
 1 5 10 15
 Lys Ser Thr Thr Ala Ala Asn Leu Gly Ala Phe Cys Ala Asp Ala Gly
 20 25 30
 Ile Arg Thr Leu Leu Ile Asp Leu Asp Pro Val Gln Pro Ser Leu Ser
 35 40 45
 Ser Tyr Tyr Glu Leu Pro Glu Val Ala Gln Gly Gly Ile Tyr Asp Leu
 50 55 60
 Leu Ala Ala Asn Ile Thr Asp Pro Ala Arg Ile Ile Ser Arg Thr Ile
 65 70 75 80
 Ile Pro Asn Leu Asp Val Val Ile Ser Asn Asp Gln Asn Asn Gln Leu
 85 90 95
 Asn Asn Leu Leu Leu Gln Ala Pro Asp Gly Arg Leu Arg Leu Ala Asn
 100 105 110
 Leu Met Pro Ala Leu Lys Glu Gly Tyr Asp Leu Val Leu Ile Asp Thr
 115 120 125
 Gln Gly Ala Arg Ser Ala Leu Leu Glu Met Val Val Leu Ala Ser Asp
 130 135 140
 Leu Val Val Ser Pro Leu Gln Pro Asn Met Leu Thr Ala Arg Glu Phe
 145 150 155 160
 Asn Arg Gly Thr Met Gln Met Leu Asp Gly Leu Arg Pro Tyr Glu Arg
 165 170 175
 Leu Gly Met Arg Ile Pro Asn Val Gln Ile Val Ile Asn Cys Leu Asp
 180 185 190
 Gln Thr Asn Asp Ser Arg Ala Ile His Glu Asn Val Arg Ala Ile Phe
 195 200 205
 Asp Glu His Gln Asp Ile Ser Val Leu Glu Thr Thr Val Pro Asp Ala

210		215		220
Val Val Phe Arg Asn Ala Ala Ser Arg Gly Leu Pro Ala His Arg Leu				
225		230		235
Glu Thr Arg Gln Pro Ser Asn Arg Thr Ser Ala Pro Ala Leu Glu Ile				240
	245		250	255
Ile Arg Asn Leu Ala Ile Glu Val Phe Pro Glu Trp Thr Asp Arg Phe				
	260		265	270
Leu Ala Leu Thr Pro Gly Gly Gly Cys Ser Thr Gly Gln Gly Arg Ala				
	275		280	285
Leu Thr Trp Arg Arg Leu Leu Ser Pro Lys Pro Ala Thr Ser Thr Arg				
	290	295		300
Asn Leu Cys Trp Asn				
305				

<210> 216
 <211> 426
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 216

Met Thr Pro Gln Gln Leu Thr Glu Glu Tyr Ile Phe Ala His Asp Leu	
1	5
Arg Glu Ala Ser Ala Lys Ile Tyr Arg Ala Ala Thr Lys Ala Leu Leu	
	20
Lys His Phe Gly Pro Thr Ala Thr Val Gln Glu Val Asp His Arg Ser	
	35
Val Leu Gly Trp Arg Arg Lys Val Leu Glu Gln Gly Leu Ser Lys Arg	
	50
Ser Trp Asn Thr Tyr Ser Asn His Leu Arg Thr Ile Trp Gly Tyr Ala	
65	70
Ile Glu His Glu Leu Val Thr His Ser Gln Val Asn Pro Phe Arg Lys	
	85
Thr Thr Val Ile Pro Pro Arg Arg Ala Ser Lys Thr Val Ala Ala Glu	
	100
Ala Ile Leu Arg Ala Arg Asn Trp Leu Asn Met Gln Val Gly Ala Glu	
	115
Arg Cys Thr Gly Asp Arg Ala Arg Ile Thr Pro Ala Trp Phe Trp Leu	
	130
Cys Thr Phe Glu Val Phe Tyr Phe Thr Gly Ile Arg Leu Asn Ala Leu	
145	150
Leu Cys Ile Arg Lys Arg Asp Ile Asp Trp Glu Asn Gln Leu Ile Leu	
	165
Ile Arg Gly Glu Thr Glu Lys Thr His Lys Glu Phe Val Val Pro Ile	
	180
Thr Glu Gly Leu Val Pro His Leu Ser Arg Leu Leu Gln Glu Ala Asp	
	195
Arg Ala Gly Phe Ala Asp Asp Gln Leu Phe Asn Val Asn Arg Phe	
	210
Ser Pro His Tyr Lys Ser Lys Val Met Asn Ser Asp Gln Val Glu Ala	
225	230
Met Tyr Arg Lys Leu Thr Glu Lys Val Gly Val Arg Met Thr Pro His	
	245
Arg Phe Arg His Thr Leu Ala Thr Asp Leu Met Lys Ala Pro Glu Arg	
	260
Asn Ile His Leu Thr Lys Cys Leu Leu Asn His Ser Asn Ile Gln Thr	
	275
Thr Met Ser Tyr Ile Glu Ala Asp Tyr Asp His Met Arg Ala Val Leu	
	290
	295
	300

His Ala Arg Ser Leu Ala Gln Gly Ala Leu Glu Asn Val Arg Lys Val
 305 310 315 320
 Asp Tyr Ser Gly Ser Pro Gln Ala Ser Ala Lys Pro Lys Pro Cys Gly
 325 330 335
 Gln Pro Leu Ala Arg Met Gly Glu Ala Pro Pro Gln Glu Ala Arg Thr
 340 345 350
 Glu Pro Ala Glu Pro Arg Glu His Thr Pro Gly Thr Gly Ile Gln Gly
 355 360 365
 Asp Ala Thr Ala Trp Glu Glu Ala Leu Pro Gln Pro Pro Asp Thr Phe
 370 375 380
 Glu Gln Ser Val Leu Phe Thr Leu Met Ala Gln His Leu Ser Asn Arg
 385 390 395 400
 Ala Ala Thr Ala Ser Ala Ala Ser Thr Ala Thr Ser Gly Ser Gly Gly
 405 410 415
 Trp Gly Ser Thr Ala Arg Ser Ser Leu Ala
 420 425

<210> 217
 <211> 125
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 217
 Met Lys Ser Gly Ile Ala Thr Arg Arg Leu Phe Ile Asn Asp Thr Lys
 1 5 10 15
 Ala Leu Val His Thr Val Asp Gly Thr Ala Met Leu Val Thr Pro Gly
 20 25 30
 Ile Phe Lys Arg Tyr Val Gln Glu His Pro Glu Val Glu Lys Leu Ala
 35 40 45
 Gln Ala Lys Glu Thr Ala Gly Trp Lys Leu Val Gln Arg Ala Phe Glu
 50 55 60
 Lys Gln Gly Leu His Arg Lys Thr Ser Lys Asn Leu Asn Ile Trp Thr
 65 70 75 80
 Ile Lys Val Ser Gly Pro Arg Lys Thr Lys Glu Leu Lys Ala Tyr Leu
 85 90 95
 Leu Gln Asp Pro Lys Leu Leu Phe Pro Val Gln Pro Leu Asp Asn Pro
 100 105 110
 Ser Leu Thr Val Ile Thr Asp Ala Glu Gly Gly Val Glu
 115 120 125

<210> 218
 <211> 280
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 218
 Ile Asp Gln Leu Ser Glu Gln Glu Ser Val Glu Val Val Cys Ser Ala
 1 5 10 15
 Phe Asp Val Ala Arg Ser Cys Tyr Tyr Val His Arg Leu Arg Arg Arg
 20 25 30
 Arg Val Asp Ala Arg Arg Val Ala Leu Arg Ser Gln Val Asn Gln Leu
 35 40 45
 Phe Ser Gln Ser Arg Gly Ser Ala Gly Ser Arg Ser Ile Leu Gly Met
 50 55 60
 Leu Arg Glu Glu Gly Val Thr Ile Gly Arg Phe Arg Val Arg Arg Leu
 65 70 75 80
 Met Arg Glu Leu Gly Leu Val Ser Lys Gln Pro Gly Ser His Ala Tyr

				85					90					95			
Lys	Gln	Ala	Thr	Val	Glu	Arg	Pro	Asp	Ile	Pro	Asn	Arg	Leu	Asn	Arg		
			100					105					110				
Glu	Phe	Ala	Thr	Glu	His	Pro	Ile	Gln	Val	Trp	Cys	Gly	Asp	Ile	Thr		
		115					120					125					
Tyr	Val	Trp	Ala	Gln	Gly	Arg	Trp	His	Tyr	Leu	Ala	Ala	Val	Leu	Asp		
	130					135					140						
Leu	Leu	Ile	Gly	Trp	Ala	Phe	Ser	Ala	Lys	Pro	Asp	Ala	Glu	Leu	Val		
145				150					155					160			
Ile	Lys	Ala	Leu	Asp	Met	Ala	Tyr	Glu	Gln	Arg	Gly	Arg	Pro	Gln	Gln		
			165					170						175			
Val	Leu	Phe	His	Ser	Asp	Gln	Gly	Ser	Gln	Tyr	Ala	Ser	Arg	Leu	Phe		
		180					185						190				
Arg	Gln	Arg	Leu	Trp	Arg	Tyr	Arg	Met	Gln	Gln	Ser	Met	Ser	Arg	Arg		
	195					200					205						
Gly	Asn	Cys	Trp	Asp	Asn	Ser	Pro	Met	Glu	Arg	Leu	Phe	Arg	Ser	Leu		
	210				215						220						
Lys	Ser	Glu	Trp	Val	Pro	Ser	Thr	Gly	Tyr	Leu	Thr	Ala	Gln	Glu	Ala		
225				230					235					240			
Gln	Arg	Asp	Ile	Ser	His	Tyr	Leu	Met	His	Arg	Tyr	Asn	Trp	Ile	Arg		
			245					250						255			
Pro	His	Gln	Phe	Asn	Asp	Gly	Leu	Pro	Pro	Ala	Val	Ala	Glu	Glu	Lys		
		260					265						270				
Leu	Asn	Pro	Leu	Ser	Gly	Met	Gly										
	275					280											

<210> 219
 <211> 102
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 219

Met	Ser	Lys	Gln	Arg	Arg	Thr	Phe	Ser	Ala	Glu	Phe	Lys	Arg	Glu	Ala		
1			5					10					15				
Ala	Ala	Leu	Val	Leu	Asp	Gln	Gly	Tyr	Ser	His	Ile	Asp	Ala	Cys	Arg		
		20					25					30					
Ser	Leu	Gly	Val	Val	Asp	Ser	Ala	Leu	Arg	Arg	Trp	Val	Lys	Gln	Leu		
	35				40						45						
Glu	Ala	Glu	Arg	Gln	Gly	Val	Thr	Pro	Lys	Ser	Lys	Ala	Leu	Thr	Pro		
	50				55					60							
Glu	Gln	Gln	Lys	Ile	Gln	Glu	Leu	Glu	Ala	Arg	Ile	Asn	Arg	Leu	Glu		
65				70				75						80			
Arg	Glu	Lys	Ala	Ile	Leu	Lys	Lys	Ala	Thr	Ala	Leu	Leu	Met	Ser	Asp		
			85				90						95				
Glu	Leu	Asp	Arg	Thr	Arg												
		100															

<210> 220
 <211> 94
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 220

Met	Leu	Tyr	Phe	Ser	Cys	Ser	Met	Lys	Met	Gly	Gly	Trp	Val	Gly	Tyr		
1			5					10					15				
Arg	Tyr	Phe	Ser	Leu	Phe	Ser	Leu	Ile	Ala	Leu	Ile	Tyr	Gly	Cys	Val		
		20					25					30					

Gly	Gly	Gly	Gly	Gly	Ser	Asp	Glu	Ile	Gly	Gln	His	Cys	Phe	Glu	Arg
		35					40					45			
Glu	Gln	Lys	Leu	Ser	Gly	Val	Asn	Asp	Asn	Glu	Glu	Gly	Ser	Val	Arg
	50					55				60					
Leu	Asn	Arg	Leu	Asn	Cys	Asp	Pro	Ile	Glu	Gly	Arg	Val	Leu	Glu	Ser
65					70				75						80
Glu	Lys	Leu	Ile	Arg	Lys	Pro	Pro	Asn	Glu	Leu	Gly	Ile	His		
				85					90						

<210> 221
 <211> 207
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 221

Met	Lys	Lys	Ser	Leu	Val	Met	Ser	Ala	Val	Leu	Leu	Val	Ala	Ser	Asn
1				5					10					15	
Phe	Ala	Cys	Ala	Asp	Glu	Gly	Ser	Asn	Asp	Gly	Ser	Glu	Ile	Cys	Arg
			20					25					30		
Ala	Gln	Gly	Gly	Val	Glu	Ile	Thr	Ser	Leu	Gly	Glu	Val	Ser	Lys	Gly
		35					40					45			
Val	Asp	Val	Glu	Asp	Val	Val	Val	Cys	Ser	Ile	Leu	Pro	Ser	Asn	Met
	50					55					60				
Lys	Ser	Ser	Gln	Arg	Ala	Pro	Thr	Leu	Pro	Pro	Leu	Gln	Arg	Met	Ile
65				70					75					80	
Ile	Ser	Ala	Met	Pro	Ser	Pro	Gly	Thr	Val	Thr	Val	Ser	Ala	Ser	Gly
				85					90				95		
Asp	Arg	Lys	Phe	Thr	Thr	Ser	Cys	Arg	Ala	Asn	Leu	Tyr	Ala	Pro	Arg
			100					105					110		
Tyr	Ala	Asn	Phe	Tyr	Pro	Asp	Gly	Val	Ser	Arg	Gly	Thr	Ser	Asp	Leu
		115					120					125			
Arg	Cys	Val	Gly	Tyr	Asn	Thr	Pro	Gly	Asn	Ser	Ser	Gln	Gly	Cys	Asn
		130				135					140				
Val	Ser	Trp	Asp	Gly	Pro	Thr	Asp	Ile	Gln	Leu	Gly	Val	Glu	Pro	Tyr
145					150				155						160
Gly	Gly	Ser	Val	Val	Val	Asn	Tyr	Ser	Cys	Thr	Ala	Phe	Lys	Thr	Thr
				165					170					175	
Ile	Pro	Val	Ile	Met	Ser	Tyr	Ser	Tyr	Arg	Asp	Gly	Arg	Ala	Val	Tyr
			180					185					190		
Gly	Glu	Val	Gln	Asn	Val	Ser	Gly	Ile	Ile	Asn	Val	Val	Leu	Asn	
		195					200					205			

<210> 222
 <211> 105
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 222

Met	Leu	Ile	Lys	Ile	Leu	Arg	Ile	Ile	Phe	Leu	Leu	Pro	Ile	Val	Gly
1				5					10					15	
Leu	Ala	Gln	Gln	Ala	Ala	Ala	Ser	Pro	Pro	Ala	Glu	Ser	His	Ser	Glu
			20					25					30		
Gln	Ser	Glu	Ser	Ser	Cys	Ile	Asp	Val	Gln	Val	Asn	Gly	Ala	Arg	Ser
		35					40					45			
Leu	Ser	Tyr	Asn	Cys	Met	Ala	Gln	Gln	Met	Thr	Pro	Pro	Lys	Glu	Asp
	50					55					60				
Pro	Arg	Arg	Arg	Asn	Pro	Thr	Leu	Asn	Ser	Thr	Leu	Ala	Ser	Glu	Arg

65					70					75				80
Ala	Thr	Arg	Leu	Pro	Pro	Thr	Gln	Thr	Gly	Leu	Phe	Thr	Ser	Leu
				85					90					95
Gln	Arg	Ala	Ile	Ser	Asn	Ser	Lys	Asp						
			100					105						

<210> 223
 <211> 67
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 223

Val	Ser	Ser	Thr	Lys	Ser	Lys	Pro	Ile	Ala	Arg	Gly	Arg	Gly	Gly	Pro
1				5					10					15	
Phe	Gly	Glu	Val	Met	Lys	Arg	Cys	Gly	Leu	Val	Pro	Val	Arg	Gly	Arg
			20					25					30		
Asn	Arg	Gln	Gln	Thr	Gly	Ser	Leu	Ala	Met	Gly	Gln	Gln	Glu	Thr	Ile
		35					40					45			
Ser	Pro	Ser	Val	Ser	Arg	Thr	Ala	Ala	Cys	Ser	Val	Arg	Gly	Asp	Ser
	50					55					60				
Leu	Met	Pro													
65															

<210> 224
 <211> 72
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 224

Met	Glu	Arg	Leu	Leu	Glu	Ser	Ile	Tyr	Ile	Asn	Ala	Arg	Pro	Ala	Met
1				5					10					15	
Glu	Leu	Arg	Leu	Ser	Leu	Thr	Ser	Ser	Gly	Arg	Lys	Arg	Met	Val	Lys
			20					25					30		
Ile	Val	Asp	Gly	Glu	Glu	Val	Glu	Val	Leu	Pro	Gly	Glu	Val	Gln	Gly
		35					40					45			
Ile	Leu	Glu	Ala	Gln	Lys	Arg	Asp	Val	Gly	Ile	Leu	Ala	Asp	Phe	Leu
	50					55					60				
Ala	Lys	Ser	Leu	Val	Ala	Arg	Arg								
65					70										

<210> 225
 <211> 149
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 225

Met	Glu	Cys	His	Val	Arg	Pro	Ala	Thr	Ser	Arg	Asp	Ala	Ala	Ala	Ile
1				5					10					15	
Ser	Cys	Val	Val	Ile	Ala	Ala	Leu	Arg	Glu	Ser	Asn	Ser	Gln	Asp	Tyr
			20					25					30		
Pro	Pro	Asp	Val	Ile	Ala	Gln	Val	Glu	Gln	Ser	Phe	Ser	Pro	Glu	Ala
		35					40					45			
Ile	Thr	Thr	Gln	Leu	Thr	Lys	Arg	Arg	Val	Phe	Val	Ala	Leu	Leu	Gly
	50					55					60				
Glu	Asn	Ile	Ile	Gly	Thr	Ala	Gly	Leu	Asp	Gly	Asp	Val	Val	Arg	Ser
65					70				75					80	

Val	Phe	Val	Asp	Pro	Ala	His	Gln	Lys	Gly	Gly	Ile	Gly	Arg	His	Leu
			85						90					95	
Met	Asp	Val	Ile	His	Thr	Thr	Ala	Ala	Ser	Ala	Gly	Val	Gly	Ala	Val
		100						105					110		
Arg	Val	Pro	Ser	Ser	Ile	Thr	Ala	Glu	Arg	Phe	Tyr	Thr	Ala	Leu	Gly
		115					120					125			
Tyr	Gln	Lys	Ile	Arg	Asp	Glu	Phe	His	Gly	Ala	Glu	Arg	Thr	Ile	Val
	130					135					140				
Met	Glu	Lys	Arg	Leu											
145															

<210> 226

<211> 366

<212> PRT

<213> Pseudomonas aeruginosa

<400> 226

Leu	Trp	Leu	Thr	Cys	Thr	Pro	Gln	Gln	Asp	Val	Gln	Ala	Ala	Leu	Ala
1				5					10					15	
Thr	Ala	Ser	Ile	Leu	Leu	Gly	Gln	Phe	His	Gln	Leu	Gly	Val	Gln	Leu
		20					25						30		
Gly	Arg	Tyr	Thr	Ser	Leu	Asp	Pro	Leu	Glu	Glu	Val	Glu	Lys	Asn	Ala
		35					40					45			
Ser	Ala	Leu	Pro	Ser	Pro	Ala	Trp	Lys	Thr	Asp	Ser	Thr	Lys	Phe	Ser
	50					55				60					
Val	Val	Leu	Lys	Ser	Gly	Gly	Arg	Ser	Ile	Asp	Lys	Gly	Ile	Pro	Thr
65					70					75				80	
Ala	Gly	Leu	Leu	Ala	His	Val	Met	Val	Ala	Lys	Phe	Ala	Asp	His	Leu
				85					90					95	
Pro	Leu	Tyr	Arg	Gln	Glu	Lys	Ile	Phe	Gly	Arg	Ala	Gly	Leu	Ala	Ile
		100						105					110		
Ala	Arg	Ser	Thr	Leu	Ala	Gln	Trp	Val	Gly	Gln	Thr	Gly	Val	Arg	Leu
		115				120						125			
Gln	Pro	Leu	Val	Asp	Ala	Leu	Arg	Glu	Ala	Val	Leu	Asn	Gln	Gly	Val
	130					135					140				
Ile	His	Ala	Asp	Glu	Thr	Pro	Val	Gln	Met	Leu	Ala	Pro	Gly	Glu	Lys
145					150					155				160	
Lys	Thr	His	Arg	Ala	Tyr	Val	Trp	Ala	Tyr	Ser	Thr	Thr	Pro	Phe	Ser
			165						170					175	
Gly	Leu	Lys	Ala	Val	Val	Tyr	Asp	Phe	Ser	Pro	Ser	Arg	Ala	Gly	Glu
		180						185					190		
His	Ala	Arg	Asn	Phe	Leu	Gly	Asp	Trp	Asn	Gly	Lys	Leu	Val	Cys	Asp
		195					200					205			
Asp	Phe	Ala	Gly	Tyr	Lys	Ala	Gly	Phe	Glu	Gln	Gly	Ile	Thr	Glu	Ile
	210					215					220				
Gly	Cys	Met	Ala	His	Ala	Arg	Arg	Lys	Phe	Phe	Asp	Leu	His	Val	Ala
225					230					235				240	
Asn	Lys	Ser	Gln	Leu	Ala	Glu	Gln	Ala	Leu	His	Ser	Ile	Ser	Gly	Leu
			245						250					255	
Tyr	Glu	Val	Glu	Arg	Gln	Ala	Arg	Asp	Met	Ser	Asp	Glu	Glu	Arg	Trp
		260						265				270			
Arg	Ile	Arg	Gln	Glu	Leu	Ala	Val	Pro	Ile	Leu	Lys	Lys	Leu	His	Asp
		275					280					285			
Trp	Met	Leu	Ala	Gln	Arg	Asp	Leu	Val	Pro	Asn	Gly	Ser	Ala	Thr	Ala
	290					295					300				
Lys	Ala	Leu	Asp	Tyr	Ser	Leu	Lys	Arg	Trp	Val	Ala	Leu	Thr	Arg	Tyr
305					310					315				320	
Leu	Asp	Asp	Gly	Ala	Val	Pro	Ile	Asp	Asn	Asn	Gln	Val	Glu	Asn	Gln

				325					330				335	
Ile	Arg	Pro	Trp	Ala	Leu	Gly	Arg	Ser	Asn	Trp	Leu	Phe	Ala	Gly Ser
				340				345					350	
Leu	Arg	Ser	Gly	Lys	Arg	Ala	Ala	Ala	Ile	Met	Ser	Leu	Ile	
		355					360					365		

<210> 227
 <211> 189
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 227

Met	Val	Arg	Arg	Arg	Val	Ala	Val	Ala	Arg	Glu	Cys	Leu	Ser	Leu
1			5					10				15		
Ser	Ser	Ala	Pro	Asn	Gln	Val	Leu	Ser	Met	Asp	Phe	Val	Phe	Asp Ala
		20					25					30		
Leu	Ser	Thr	Gly	Arg	Arg	Ile	Lys	Cys	Leu	Thr	Val	Val	Asp	Asp Phe
	35					40					45			
Thr	Lys	Val	Ser	Val	Asp	Ile	Leu	Val	Glu	Tyr	Gly	Ile	Ser	Gly Phe
	50				55					60				
Arg	Val	Thr	Arg	Ala	Leu	Asp	Glu	Met	Ala	Arg	Phe	Arg	Gly	Tyr Pro
65				70				75						80
Gln	Ala	Ile	Arg	Thr	Asp	Gln	Gly	Pro	Glu	Phe	Thr	Gly	Lys	Ala Leu
		85					90						95	
Asp	Gln	Trp	Ala	Cys	Gln	Arg	Asp	Ile	Lys	Leu	Lys	Leu	Ile	Gln Pro
	100						105					110		
Gly	Gln	Pro	Thr	Gln	Ser	Ala	Phe	Ile	Glu	Ser	Phe	Asn	Gly	Lys Phe
	115					120					125			
Arg	Gly	Glu	Cys	Leu	Asn	Glu	His	Cys	Ser	Leu	Val	Glu	Ala	Arg Ile
	130				135					140				
Arg	Ile	Ala	Ala	Trp	Arg	Asp	Tyr	Asn	Glu	His	Arg	Pro	His	Ser Ala
145				150				155						160
Ile	Gly	Asn	Leu	Ser	Pro	Ala	Glu	Leu	Ala	Ala	Lys	Trp	Arg	Thr Asn
		165					170						175	
Gln	Gln	Gln	Leu	Lys	Arg	Glu	Lys	Leu	Ile	Ser	Thr	Pro		
	180						185							

<210> 228
 <211> 687
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 228

Met	His	Ile	Gln	Ser	Leu	Gly	Ala	Thr	Ala	Ser	Ser	Leu	Asn	Gln Glu
1			5						10				15	
Pro	Val	Glu	Thr	Pro	Ser	Gln	Ala	Ala	His	Lys	Ser	Ala	Ser	Leu Arg
		20					25					30		
Gln	Glu	Pro	Ser	Gly	Gln	Gly	Leu	Gly	Val	Ala	Leu	Lys	Ser	Thr Pro
	35					40					45			
Gly	Ile	Leu	Ser	Gly	Lys	Leu	Pro	Glu	Ser	Val	Ser	Asp	Val	Arg Phe
	50				55					60				
Ser	Ser	Pro	Gln	Gly	Gln	Gly	Glu	Ser	Arg	Thr	Leu	Thr	Asp	Ser Ala
65				70				75						80
Gly	Pro	Arg	Gln	Ile	Thr	Leu	Arg	Gln	Phe	Glu	Asn	Gly	Val	Thr Glu
		85					90						95	
Leu	Gln	Leu	Ser	Arg	Pro	Pro	Leu	Thr	Ser	Leu	Val	Leu	Ser	Gly Gly
	100						105					110		

Gly	Ala	Lys	Gly	Ala	Ala	Tyr	Pro	Gly	Ala	Met	Leu	Ala	Leu	Glu	Glu
		115					120				125				
Lys	Gly	Met	Leu	Asp	Gly	Ile	Arg	Ser	Met	Ser	Gly	Ser	Ser	Ala	Gly
	130					135					140				
Gly	Ile	Thr	Ala	Ala	Leu	Leu	Ala	Ser	Gly	Met	Ser	Pro	Ala	Ala	Phe
145					150					155					160
Lys	Thr	Leu	Ser	Asp	Lys	Met	Asp	Leu	Ile	Ser	Leu	Leu	Asp	Ser	Ser
				165					170					175	
Asn	Lys	Lys	Leu	Lys	Leu	Phe	Gln	His	Ile	Ser	Ser	Glu	Ile	Gly	Ala
			180					185					190		
Ser	Leu	Lys	Lys	Gly	Leu	Gly	Asn	Lys	Ile	Gly	Gly	Phe	Ser	Glu	Leu
		195					200					205			
Leu	Leu	Asn	Val	Leu	Pro	Arg	Ile	Asp	Ser	Arg	Ala	Glu	Pro	Leu	Glu
	210					215					220				
Arg	Leu	Leu	Arg	Asp	Glu	Thr	Arg	Lys	Ala	Val	Leu	Gly	Gln	Ile	Ala
225					230					235					240
Thr	His	Pro	Glu	Val	Ala	Arg	Gln	Pro	Thr	Val	Ala	Ala	Ile	Ala	Ser
				245					250					255	
Arg	Leu	Gln	Ser	Gly	Ser	Gly	Val	Thr	Phe	Gly	Asp	Leu	Asp	Arg	Leu
			260					265					270		
Ser	Ala	Tyr	Ile	Pro	Gln	Ile	Lys	Thr	Leu	Asn	Ile	Thr	Gly	Thr	Ala
		275					280					285			
Met	Phe	Glu	Gly	Arg	Pro	Gln	Leu	Val	Val	Phe	Asn	Ala	Ser	His	Thr
	290					295					300				
Pro	Asp	Leu	Glu	Val	Ala	Gln	Ala	Ala	His	Ile	Ser	Gly	Ser	Phe	Pro
305					310					315					320
Gly	Val	Phe	Gln	Lys	Val	Ser	Leu	Ser	Asp	Gln	Pro	Tyr	Gln	Ala	Gly
				325					330					335	
Val	Glu	Trp	Thr	Glu	Phe	Gln	Asp	Gly	Gly	Val	Met	Ile	Asn	Val	Pro
			340					345					350		
Val	Pro	Glu	Met	Ile	Asp	Lys	Asn	Phe	Asp	Ser	Gly	Pro	Leu	Arg	Arg
			355				360					365			
Asn	Asp	Asn	Leu	Ile	Leu	Glu	Phe	Glu	Gly	Glu	Ala	Gly	Glu	Val	Ala
	370					375					380				
Pro	Asp	Arg	Gly	Thr	Arg	Gly	Gly	Ala	Leu	Lys	Gly	Trp	Val	Val	Gly
385					390					395					400
Val	Pro	Ala	Leu	Gln	Ala	Arg	Glu	Met	Leu	Gln	Leu	Glu	Gly	Leu	Glu
				405					410					415	
Glu	Leu	Arg	Glu	Gln	Thr	Val	Val	Val	Pro	Leu	Lys	Ser	Glu	Arg	Gly
			420					425					430		
Asp	Phe	Ser	Gly	Met	Leu	Gly	Gly	Thr	Leu	Asn	Phe	Thr	Met	Pro	Asp
		435					440					445			
Glu	Ile	Lys	Ala	His	Leu	Gln	Ala	Ser	Glu	Arg	His	Thr	Phe	Ala	Ser
	450					455					460				
His	Leu	Glu	Lys	Arg	Leu	Gln	Ala	Ser	Glu	Arg	His	Thr	Phe	Ala	Ser
465					470					475					480
Leu	Asp	Glu	Ala	Leu	Leu	Ala	Leu	Asp	Asp	Ser	Met	Leu	Thr	Ser	Val
				485					490					495	
Ala	Gln	Gln	Asn	Pro	Glu	Ile	Thr	Asp	Gly	Ala	Val	Ala	Phe	Arg	Gln
			500					505					510		
Lys	Ala	Arg	Asp	Ala	Phe	Thr	Glu	Leu	Thr	Val	Ala	Ile	Val	Ser	Ala
		515					520					525			
Asn	Gly	Leu	Ala	Gly	Arg	Leu	Lys	Leu	Asp	Glu	Ala	Met	Arg	Ser	Ala
	530					535					540				
Leu	Gln	Arg	Leu	Asp	Ala	Leu	Ala	Asp	Thr	Pro	Glu	Arg	Leu	Ala	Trp
545					550					555					560
Leu	Ala	Ala	Glu	Leu	Asn	His	Ala	Asp	Asn	Val	Asp	His	Gln	Gln	Leu
				565					570					575	
Leu	Asp	Ala	Met	Arg	Gly	Gln	Thr	Val	Gln	Ser	Pro	Val	Leu	Ala	Ala

<210> 231
 <211> 76
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 231
 Asp Gln Thr Cys Asp Asn Leu Ser Gln Asn Pro Pro His His Leu Leu
 1 5 10 15
 Leu Arg Leu Leu Asp His Trp Gly Asp Pro Ala Gly Cys Trp Ser Leu
 20 25 30
 Gly Gln Thr Tyr Ser Gly His Leu Tyr Leu Pro Tyr Cys Arg Glu Leu
 35 40 45
 His Lys Cys Ser Leu Cys Ala His Arg Asn Trp His His Tyr Cys Cys
 50 55 60
 Leu Trp Pro Val Trp Met Leu Cys Tyr Met Ser Trp
 65 70 75

<210> 232
 <211> 76
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 232
 Asp Gln Thr Cys Asp Asn Leu Ser Gln Asn Pro Pro His His Leu Leu
 1 5 10 15
 Leu Arg Leu Leu Asp His Trp Gly Asp Pro Ala Gly Cys Trp Ser Leu
 20 25 30
 Gly Gln Thr Tyr Ser Gly His Leu Tyr Leu Pro Tyr Cys Arg Glu Leu
 35 40 45
 His Lys Cys Ser Leu Cys Ala His Arg Asn Trp His His Tyr Cys Cys
 50 55 60
 Leu Trp Pro Val Trp Met Leu Cys Tyr Met Ser Trp
 65 70 75

<210> 233
 <211> 58
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 233
 Gln Val Gln His Pro Pro Leu Cys Leu Leu Asp Gln His Gln Gln Glu
 1 5 10 15
 Cys Ile Pro Pro Cys Leu Pro Pro Asp His Leu Gln Asp Pro Gln His
 20 25 30
 Pro Phe Leu Leu Pro Asp His His Val Pro His Leu Val Val Leu Ile
 35 40 45
 Gln Pro Gln Leu Cys Arg Ala Leu Ala Pro
 50 55

<210> 234
 <211> 56
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 234

Gln Val Gln His Pro Cys Leu Leu Asp Gln His Gln Gln Glu Cys Ile Pro Pro Cys
 Leu Pro Pro Asp His Leu Gln Asp Pro Gln His Pro Phe Leu Leu Pro Asp His His
 Val Pro His Leu Val Val Leu Ile Gln Pro Gln Leu Cys Arg Ala Leu Ala Pro

<210> 235
 <211> 58
 <212> PRT
 <213> Pseudomonas aeruginosa

<220>
 <221> VARIANT
 <222> 6,7
 <223> Xaa = Any amino acid

<400> 235
 Gln Val Gln His Pro Xaa Xaa Cys Leu Leu Asp Gln His Gln Gln Glu
 1 5 10 15
 Cys Ile Pro Pro Cys Leu Pro Pro Asp His Leu Gln Asp Pro Gln His
 20 25 30
 Pro Phe Leu Leu Pro Asp His His Val Pro His Leu Val Val Leu Ile
 35 40 45
 Gln Pro Gln Leu Cys Arg Ala Leu Ala Pro
 50 55

<210> 236
 <211> 161
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 236
 Cys Gly Gly Ala Ser Cys His Asn Thr Leu Gly Ser Tyr Lys Cys Met
 1 5 10 15
 Cys Pro Ala Gly Phe Gln Tyr Glu Gln Phe Ser Gly Gly Cys Gln Asp
 20 25 30
 Ile Asn Glu Cys Gly Ser Ala Gln Ala Pro Cys Ser Tyr Gly Cys Ser
 35 40 45
 Asn Thr Glu Gly Gly Tyr Leu Cys Gly Cys Pro Pro Gly Tyr Phe Arg
 50 55 60
 Ile Gly Gln Gly His Cys Val Ser Gly Met Gly Met Gly Arg Gly Asn
 65 70 75 80
 Pro Glu Pro Pro Val Ser Gly Glu Met Asp Asp Asn Ser Leu Ser Pro
 85 90 95
 Glu Ala Cys Tyr Glu Cys Lys Ile Asn Gly Tyr Pro Lys Arg Gly Arg
 100 105 110
 Lys Arg Arg Ser Thr Asn Glu Thr Asp Ala Ser Asn Ile Glu Asp Gln
 115 120 125
 Ser Glu Thr Glu Ala Asn Val Ser Leu Ala Ser Trp Asp Val Glu Lys
 130 135 140
 Thr Ala Ile Phe Ala Phe Asn Ile Ser His Val Asn Lys Val Arg Ile
 145 150 155 160
 Leu

<210> 237
 <211> 161
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 237

Cys	Gly	Gly	Ala	Ser	Cys	His	Asn	Thr	Leu	Gly	Ser	Tyr	Lys	Cys	Met
1				5					10					15	
Cys	Pro	Ala	Gly	Phe	Gln	Tyr	Glu	Gln	Phe	Ser	Gly	Gly	Cys	Gln	Asp
		20						25					30		
Ile	Asn	Glu	Cys	Gly	Ser	Ala	Gln	Ala	Pro	Cys	Ser	Tyr	Gly	Cys	Ser
		35					40					45			
Asn	Thr	Glu	Gly	Gly	Tyr	Leu	Cys	Gly	Cys	Pro	Pro	Gly	Tyr	Phe	Arg
	50					55					60				
Ile	Gly	Gln	Gly	His	Cys	Val	Ser	Gly	Met	Gly	Met	Gly	Arg	Gly	Asn
65					70					75					80
Pro	Glu	Pro	Pro	Val	Ser	Gly	Glu	Met	Asp	Asp	Asn	Ser	Leu	Ser	Pro
				85					90					95	
Glu	Ala	Cys	Tyr	Glu	Cys	Lys	Ile	Asn	Gly	Tyr	Pro	Lys	Arg	Gly	Arg
			100					105					110		
Lys	Arg	Arg	Ser	Thr	Asn	Glu	Thr	Asp	Ala	Ser	Asn	Ile	Glu	Asp	Gln
		115					120					125			
Ser	Glu	Thr	Glu	Ala	Asn	Val	Ser	Leu	Ala	Ser	Trp	Asp	Val	Glu	Lys
	130					135					140				
Thr	Ala	Ile	Phe	Ala	Phe	Asn	Ile	Ser	His	Val	Asn	Lys	Val	Arg	Ile
145					150					155					160
Leu															

<210> 238

<211> 162

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 238

Cys	Gly	Gly	Ala	Ser	Cys	His	Asn	Thr	Leu	Gly	Ser	Tyr	Lys	Cys	Met
1				5					10					15	
Cys	Pro	Ala	Gly	Phe	Gln	Tyr	Glu	Gln	Phe	Ser	Gly	Gly	Cys	Gln	Asp
		20						25					30		
Ile	Asn	Glu	Cys	Gly	Ser	Ala	Gln	Ala	Pro	Cys	Ser	Tyr	Gly	Cys	Ser
		35					40					45			
Asn	Thr	Glu	Gly	Gly	Tyr	Leu	Cys	Gly	Cys	Pro	Pro	Gly	Tyr	Phe	Arg
	50					55					60				
Ile	Gly	Gln	Gly	His	Cys	Val	Ser	Gly	Met	Gly	Met	Gly	Arg	Gly	Asn
65					70					75					80
Pro	Glu	Pro	Pro	Val	Ser	Gly	Glu	Met	Asp	Asp	Asn	Ser	Leu	Ser	Pro
				85					90					95	
Glu	Ala	Cys	Tyr	Glu	Cys	Lys	Ile	Asn	Gly	Tyr	Pro	Lys	Arg	Gly	Arg
			100					105					110		
Lys	Arg	Arg	Ser	Thr	Asn	Glu	Thr	Asp	Ala	Ser	Asn	Ile	Glu	Asp	Gln
		115					120					125			
Ser	Glu	Thr	Glu	Ala	Asn	Val	Ser	Leu	Ala	Ser	Trp	Asp	Val	Glu	Lys
	130					135					140				
Thr	Ala	Ile	Phe	Ala	Phe	Asn	Ile	Ser	His	Val	Ser	Asn	Lys	Val	Arg
145					150					155					160
Ile	Leu														

<210> 239

<211> 88

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 239

Asp Gly Asp Val Tyr Asn Pro Ser Thr Gly Val Phe Thr Ala Pro Tyr
1 5 10 15
Asp Gly Arg Tyr Leu Ile Thr Ala Thr Leu Thr Pro Glu Arg Asp Ala
20 25 30
Tyr Val Glu Ala Val Leu Ser Val Ser Asn Ala Ser Val Ala Gln Leu
35 40 45
His Thr Ala Gly Tyr Arg Arg Glu Phe Leu Glu Tyr His Arg Pro Pro
50 55 60
Gly Ala Leu His Thr Cys Gly Gly Pro Gly Ala Phe His Leu Ile Val
65 70 75 80
His Leu Lys Ala Gly Asp Ala Val
85

<210> 240

<211> 46

<212> PRT

<213> Pseudomonas aeruginosa

<400> 240

Asp Gly Tyr Pro Thr Gly Val Phe Thr Ala Pro Gly Arg Tyr Leu Ala
1 5 10 15
Leu Thr Arg Val Glu Ala Val Leu Ser Ser Asn Val Ala Gly Tyr Glu
20 25 30
Leu Glu Pro Gly Gly Pro Phe Leu Ile Leu Ala Gly Asp Val
35 40 45

<210> 241

<211> 88

<212> PRT

<213> Pseudomonas aeruginosa

<400> 241

Asp Gly Gly Tyr Tyr Asp Pro Glu Thr Gly Val Phe Thr Ala Pro Leu
1 5 10 15
Ala Gly Arg Tyr Leu Leu Ser Ala Val Leu Thr Gly His Arg His Glu
20 25 30
Lys Val Glu Ala Val Leu Ser Arg Ser Asn Gln Gly Val Ala Arg Val
35 40 45
Asp Ser Gly Gly Tyr Glu Pro Glu Gly Leu Glu Asn Lys Pro Val Ala
50 55 60
Glu Ser Gln Pro Ser Pro Gly Thr Leu Gly Val Phe Ser Leu Ile Leu
65 70 75 80
Pro Leu Gln Ala Gly Asp Thr Val
85

<210> 242

<211> 88

<212> PRT

<213> Pseudomonas aeruginosa

<400> 242

Asp Gly Asp Val Tyr Asn Pro Ser Thr Gly Val Phe Thr Ala Pro Tyr
1 5 10 15
Asp Gly Arg Tyr Leu Ile Thr Ala Thr Leu Thr Pro Glu Arg Asp Ala
20 25 30

Tyr Val Glu Ala Val Leu Ser Val Ser Asn Ala Ser Val Ala Gln Leu
 35 40 45
 His Thr Ala Gly Tyr Arg Arg Glu Phe Leu Glu Tyr His Arg Pro Pro
 50 55 60
 Gly Ala Leu His Thr Cys Gly Gly Pro Gly Ala Phe His Leu Ile Val
 65 70 75 80
 His Leu Lys Ala Gly Asp Ala Val
 85

<210> 243
 <211> 45
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 243
 Asp Gly Tyr Pro Thr Gly Val Phe Thr Ala Pro Gly Arg Tyr Leu Ala
 1 5 10 15
 Leu Thr Arg Val Glu Ala Val Leu Ser Ser Asn Val Ala Gly Tyr Glu
 20 25 30
 Leu Glu Pro Gly Gly Phe Leu Ile Leu Ala Gly Asp Val
 35 40 45

<210> 244
 <211> 88
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 244
 Asp Gly Gly Tyr Tyr Asp Pro Glu Thr Gly Val Phe Thr Ala Pro Leu
 1 5 10 15
 Ala Gly Arg Tyr Leu Leu Ser Ala Val Leu Thr Gly His Arg His Glu
 20 25 30
 Lys Val Glu Ala Val Leu Ser Arg Ser Asn Gln Gly Val Ala Arg Val
 35 40 45
 Asp Ser Gly Gly Tyr Glu Pro Glu Gly Leu Glu Asn Lys Pro Val Ala
 50 55 60
 Glu Ser Gln Pro Ser Pro Gly Thr Leu Gly Val Phe Ser Leu Ile Leu
 65 70 75 80
 Pro Leu Gln Ala Gly Asp Thr Val
 85

<210> 245
 <211> 51
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 245
 Gly Glu Asn Gly Ser Ser Gly Ser Gln Ala Pro Leu Gln Gly Leu Arg
 1 5 10 15
 Gly Ile Phe Gly Leu Trp Gly Arg Arg Ser Arg Ala Arg Phe Cys Gly
 20 25 30
 Pro Arg Pro Val Ala Arg Leu Gly Gly Gly Thr Ser Ala Gly Arg Glu
 35 40 45
 Leu Gly Leu
 50

<210> 246
 <211> 24
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 246
 Gly Glu Gly Ser Gly Pro Gln Gly Arg Gly Ile Gly Gly Gly Pro Arg
 1 5 10 15
 Pro Gly Gly Gly Ser Gly Gly Leu
 20

<210> 247
 <211> 51
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 247
 Gly Glu Pro Gly Pro Ser Gly Glu Asn Gly Pro Gln Gly Val Arg Gly
 1 5 10 15
 Ile Pro Gly Val Val Gly Glu Asn Gly Lys Thr Gly Arg Gly Gly Pro
 20 25 30
 Arg Gly Pro Pro Gly Leu Arg Gly Gly Gly Gly Ser Arg Gly Glu Arg
 35 40 45
 Gly Gly Leu
 50

<210> 248
 <211> 51
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 248
 Gly Glu Asn Gly Ser Ser Gly Ser Gln Ala Pro Leu Gln Gly Leu Arg
 1 5 10 15
 Gly Ile Phe Gly Leu Trp Gly Arg Arg Ser Arg Ala Arg Phe Cys Gly
 20 25 30
 Pro Arg Pro Val Ala Arg Leu Gly Gly Gly Thr Ser Ala Gly Arg Glu
 35 40 45
 Leu Gly Leu
 50

<210> 249
 <211> 24
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 249
 Gly Glu Gly Ser Gly Pro Gln Gly Arg Gly Ile Gly Gly Gly Pro Arg
 1 5 10 15
 Pro Gly Gly Gly Ser Gly Gly Leu
 20

<210> 250
 <211> 51
 <212> PRT

<213> Pseudomonas aeruginosa

<400> 250

Gly Glu Pro Gly Pro Ser Gly Glu Asn Gly Pro Gln Gly Val Arg Gly
1 5 10 15
Ile Pro Gly Val Gly Glu Asn Gly Lys Thr Gly Arg Gly Gly Pro
20 25 30
Arg Gly Pro Pro Gly Leu Arg Gly Gly Gly Ser Arg Gly Glu Arg
35 40 45
Gly Gly Leu
50

<210> 251

<211> 138

<212> PRT

<213> Pseudomonas aeruginosa

<400> 251

Val Glu Pro Phe His Gln Gly His His Ser Val Asp Thr Ala Ala Met
1 5 10 15
Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly
20 25 30
Arg Arg Gln Arg Ile Thr Met Ala Ile Arg Thr Val Arg Glu Glu Ile
35 40 45
Leu Lys Ala Gln Thr Pro Glu Gly His Phe Gly Asn Val Tyr Ser Thr
50 55 60
Pro Leu Ala Leu Gln Phe Leu Met Thr Ser Pro Met Pro Gly Ala Glu
65 70 75 80
Leu Gly Thr Ala Cys Leu Lys Ala Arg Val Ala Leu Leu Ala Ser Leu
85 90 95
Gln Asp Gly Ala Phe Gln Asn Ala Leu Met Ile Ser Gln Leu Leu Pro
100 105 110
Val Leu Asn His Lys Thr Tyr Ile Asp Leu Ile Phe Pro Asp Cys Leu
115 120 125
Ala Pro Arg Val Met Leu Glu Pro Ala Ala
130 135

<210> 252

<211> 138

<212> PRT

<213> Pseudomonas aeruginosa

<400> 252

Val Glu Pro Phe His Gln Gly His His Ser Val Asp Thr Ala Ala Met
1 5 10 15
Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly
20 25 30
Arg Arg Gln Arg Ile Thr Met Ala Ile Arg Thr Val Arg Glu Glu Ile
35 40 45
Leu Lys Ala Gln Thr Pro Glu Gly His Phe Gly Asn Val Tyr Ser Thr
50 55 60
Pro Leu Ala Leu Gln Phe Leu Met Thr Ser Pro Met Pro Gly Ala Glu
65 70 75 80
Leu Gly Thr Ala Cys Leu Lys Ala Arg Val Ala Leu Leu Ala Ser Leu
85 90 95
Gln Asp Gly Ala Phe Gln Asn Ala Leu Met Ile Ser Gln Leu Leu Pro
100 105 110

Val	Leu	Asn	His	Lys	Thr	Tyr	Ile	Asp	Leu	Ile	Phe	Pro	Asp	Cys	Leu
		115					120					125			
Ala	Pro	Arg	Val	Met	Leu	Glu	Pro	Ala	Ala						
		130				135									

<210> 253
 <211> 138
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 253															
Val	Glu	Pro	Phe	His	Gln	Gly	His	His	Ser	Val	Asp	Thr	Ala	Ala	Met
1				5					10					15	
Ala	Gly	Leu	Ala	Phe	Thr	Cys	Leu	Lys	Arg	Ser	Asn	Phe	Asn	Pro	Gly
		20						25					30		
Arg	Arg	Gln	Arg	Ile	Thr	Met	Ala	Ile	Arg	Thr	Val	Arg	Glu	Glu	Ile
		35					40					45			
Leu	Lys	Ala	Gln	Thr	Pro	Glu	Gly	His	Phe	Gly	Asn	Val	Tyr	Ser	Thr
	50					55					60				
Pro	Leu	Ala	Leu	Gln	Phe	Leu	Met	Thr	Ser	Pro	Met	Pro	Gly	Ala	Glu
65				70					75					80	
Leu	Gly	Thr	Ala	Cys	Leu	Lys	Ala	Arg	Val	Ala	Leu	Leu	Ala	Ser	Leu
			85					90						95	
Gln	Asp	Gly	Ala	Phe	Gln	Asn	Ala	Leu	Met	Ile	Ser	Gln	Leu	Leu	Pro
			100				105						110		
Val	Leu	Asn	His	Lys	Thr	Tyr	Ile	Asp	Leu	Ile	Phe	Pro	Asp	Cys	Leu
		115					120					125			
Ala	Pro	Arg	Val	Met	Leu	Glu	Pro	Ala	Ala						
		130				135									

<210> 254
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 254															
Val	Glu	Pro	Phe	His	Gln	Gly	His	His	Ser	Val	Asp	Thr	Ala	Ala	Met
1				5					10					15	
Ala	Gly	Leu	Ala	Phe	Thr	Cys	Leu	Lys	Arg	Ser	Asn	Phe	Asn	Pro	Gly
		20						25					30		
Arg	Arg	Gln	Arg	Ile	Thr	Met	Ala								
		35				40									

<210> 255
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 255															
Val	Glu	Pro	Phe	His	Gln	Gly	His	His	Ser	Val	Asp	Thr	Ala	Ala	Met
1				5					10					15	
Ala	Gly	Leu	Ala	Phe	Thr	Cys	Leu	Lys	Arg	Ser	Asn	Phe	Asn	Pro	Gly
		20						25					30		
Arg	Arg	Gln	Arg	Ile	Thr	Met	Ala								
		35				40									

<210> 256
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 256
 Val Glu Pro Phe His Gln Gly His His Ser Val Asp Thr Ala Ala Met
 1 5 10 15
 Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly
 20 25 30
 Arg Arg Gln Arg Ile Thr Met Ala
 35 40

<210> 257
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 257
 Val Glu Pro Phe His Gln Gly His His Ser Val Asp Thr Ala Ala Met
 1 5 10 15
 Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly
 20 25 30
 Arg Arg Gln Arg Ile Thr Met Ala
 35 40

<210> 258
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 258
 Val Glu Pro Phe His Gln Gly His His Ser Val Asp Thr Ala Ala Met
 1 5 10 15
 Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly
 20 25 30
 Arg Arg Gln Arg Ile Thr Met Ala
 35 40

<210> 259
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 259
 Val Glu Pro Phe His Gln Gly His His Ser Val Asp Thr Ala Ala Met
 1 5 10 15
 Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly
 20 25 30
 Arg Arg Gln Arg Ile Thr Met Ala
 35 40

<210> 260
 <211> 141
 <212> PRT

<213> Pseudomonas aeruginosa

<400> 260

```
Arg Asn Cys Gln Asp Ile Asp Glu Cys Val Thr Gly Ile His Asn Cys
 1          5          10          15
Ser Ile Asn Glu Thr Cys Phe Asn Ile Gln Gly Gly Phe Arg Cys Leu
      20          25          30
Ala Phe Glu Cys Pro Glu Asn Tyr Arg Arg Ser Ala Ala Thr Leu Gln
      35          40          45
Gln Glu Lys Thr Asp Thr Val Arg Cys Ile Lys Ser Cys Arg Pro Asn
      50          55          60
Asp Val Thr Cys Val Phe Asp Pro Val His Thr Ile Ser His Thr Val
65          70          75          80
Ile Ser Leu Pro Thr Phe Arg Glu Phe Thr Arg Pro Glu Glu Ile Ile
      85          90          95
Phe Leu Arg Ala Ile Thr Pro Pro His Pro Ala Ser Gln Ala Asn Ile
      100          105          110
Ile Phe Asp Ile Thr Glu Gly Asn Leu Arg Asp Ser Phe Asp Ile Ile
      115          120          125
Lys Arg Tyr Met Asp Gly Met Thr Val Gly Ile Arg Arg
      130          135          140
```

<210> 261

<211> 138

<212> PRT

<213> Pseudomonas aeruginosa

<400> 261

```
Arg Asn Cys Gln Asp Ile Asp Glu Cys Val Thr Gly Ile His Asn Cys
 1          5          10          15
Ser Ile Asn Glu Thr Cys Phe Asn Ile Gln Gly Phe Arg Cys Leu Ala
      20          25          30
Phe Glu Cys Pro Glu Asn Tyr Arg Arg Ser Ala Ala Thr Leu Gln Gln
      35          40          45
Glu Lys Thr Asp Thr Val Arg Cys Ile Lys Ser Cys Arg Pro Asn Asp
      50          55          60
Val Thr Cys Val Phe Asp Pro Val His Thr Ile Ser His Thr Val Ile
65          70          75          80
Ser Leu Pro Thr Phe Arg Glu Phe Thr Arg Pro Glu Glu Ile Ile Phe
      85          90          95
Leu Arg Ala Ile Thr Pro Pro His Pro Ala Ser Gln Ala Asn Ile Ile
      100          105          110
Phe Asp Ile Thr Glu Gly Asn Leu Arg Asp Ser Phe Asp Ile Ile Lys
      115          120          125
Arg Tyr Met Asp Gly Met Thr Val Gly Arg
      130          135
```

<210> 262

<211> 141

<212> PRT

<213> Pseudomonas aeruginosa

<400> 262

```
Arg Asn Cys Gln Asp Ile Asp Glu Cys Val Thr Gly Ile His Asn Cys
 1          5          10          15
Ser Ile Asn Glu Thr Cys Phe Asn Ile Gln Gly Ala Phe Arg Cys Leu
      20          25          30
```

Ala Phe Glu Cys Pro Glu Asn Tyr Arg Arg Ser Ala Ala Thr Leu Gln
35 40 45
Gln Glu Lys Thr Asp Thr Val Arg Cys Ile Lys Ser Cys Arg Pro Asn
50 55 60
Asp Val Thr Cys Val Phe Asp Pro Val His Thr Ile Ser His Thr Val
65 70 75 80
Ile Ser Leu Pro Thr Phe Arg Glu Phe Thr Arg Pro Glu Glu Ile Ile
85 90 95
Phe Leu Arg Ala Ile Thr Pro Pro His Pro Ala Ser Gln Ala Asn Ile
100 105 110
Ile Phe Asp Ile Thr Glu Gly Asn Leu Arg Asp Ser Phe Asp Ile Ile
115 120 125
Lys Arg Tyr Met Asp Gly Met Thr Val Gly Val Val Arg
130 135 140

<210> 263
<211> 150
<212> PRT
<213> Pseudomonas aeruginosa

<220>
<221> VARIANT
<222> 14, 18, 19, 35, 37, 42, 51, 55, 60, 68, 70, 74, 85, 87, 91,
96, 98, 106, 128, 135
<223> Xaa = Any amino acid

<221> VARIANT
<222> 14, 18, 19, 35, 37, 42, 51, 55, 60, 68, 70, 74, 85, 87, 91,
96, 98, 106, 128, 135
<223> Xaa = Any Amino Acid

<400> 263
Pro Gly Ser Arg Ile Arg Gly Arg Val Asp Thr Leu Gln Xaa Asn Ala
1 5 10 15
Pro Xaa Xaa Met Met Val Lys Asp Glu Tyr Val His Asp Phe Glu Gly
20 25 30
Gln Pro Xaa Leu Xaa Thr Glu Gly His Xaa Ile Gln Thr Ile Gln His
35 40 45
Pro Pro Xaa Asn Arg Ala Xaa Thr Glu Thr Tyr Xaa Thr Pro Ala Leu
50 55 60
Leu Ala Pro Xaa Glu Xaa Asn Ala Thr Xaa Thr Ala Asn Phe Pro Asn
65 70 75 80
Ile Pro Val Ala Xaa Thr Xaa Gln Pro Ala Xaa Ile Leu Gly Gly Xaa
85 90 95
His Xaa Glu Gly Leu Leu Gln Ile Ala Xaa Gly Pro Gln Pro Gly Gln
100 105 110
Gln Gln Asn Gly Phe Thr Gly Gln Pro Ala Thr Tyr His His Asn Xaa
115 120 125
Thr Thr Thr Trp Thr Gly Xaa Arg Thr Ala Pro Tyr Thr Pro Asn Leu
130 135 140
Pro His His Gln Lys Gly
145 150

<210> 264
<211> 122
<212> PRT
<213> Pseudomonas aeruginosa

<400> 264
 Pro Gly Gly Thr Leu Gln Asn Ala Pro Met Met Val Lys Asp Glu Tyr
 1 5 10 15
 Val His Asp Phe Glu Gly Gln Pro Leu Thr Glu Gly His Ile Gln Thr
 20 25 30
 Ile Gln His Pro Pro Asn Arg Ala Thr Glu Thr Tyr Thr Pro Ala Leu
 35 40 45
 Leu Ala Pro Glu Asn Ala Thr Ala Asn Phe Pro Asn Ile Pro Val
 50 55 60
 Ala Thr Gln Pro Ala Ile Leu Gly Gly His Glu Gly Leu Leu Gln Ile
 65 70 75 80
 Ala Gly Pro Gln Pro Gly Gln Gln Gln Asn Gly Phe Thr Gly Gln Pro
 85 90 95
 Ala Thr Tyr His Asn Thr Thr Thr Trp Thr Gly Arg Thr Ala Pro
 100 105 110
 Tyr Thr Pro Asn Leu Pro His His Gln Gly
 115 120

<210> 265
 <211> 148
 <212> PRT
 <213> Pseudomonas aeruginosa

<220>
 <221> VARIANT
 <222> 16, 17
 <223> Xaa = Any Amino Acid

<400> 265
 Pro Gly Ile Asp Leu Ser Gly Leu Thr Leu Gln Ser Ser Ala Pro Xaa
 1 5 10 15
 Xaa Met Met Val Lys Asp Glu Tyr Val His Asp Phe Glu Gly Gln Pro
 20 25 30
 Ser Leu Ser Thr Glu Gly His Ser Ile Gln Thr Ile Gln His Pro Pro
 35 40 45
 Ser Asn Arg Ala Ser Thr Glu Thr Tyr Ser Thr Pro Ala Leu Leu Ala
 50 55 60
 Pro Ser Glu Ser Asn Ala Thr Ser Thr Ala Asn Phe Pro Asn Ile Pro
 65 70 75 80
 Val Ala Ser Thr Ser Gln Pro Ala Ser Ile Leu Gly Gly Ser His Ser
 85 90 95
 Glu Gly Leu Leu Gln Ile Ala Ser Gly Pro Gln Pro Gly Gln Gln Gln
 100 105 110
 Asn Gly Phe Thr Gly Gln Pro Ala Thr Tyr His His Asn Ser Thr Thr
 115 120 125
 Thr Trp Thr Gly Ser Arg Thr Ala Pro Tyr Thr Pro Asn Leu Pro His
 130 135 140
 His Gln Asn Gly
 145

<210> 266
 <211> 77
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 266
 Met Pro Ala Leu Arg Pro Ala Leu Leu Trp Ala Leu Leu Ala Leu Trp

1		5		10		15									
Leu	Cys	Cys	Ala	Thr	Pro	Ala	His	Ala	Leu	Gln	Cys	Arg	Asp	Gly	Tyr
			20					25					30		
Glu	Pro	Cys	Val	Asn	Glu	Gly	Met	Cys	Val	Thr	Tyr	His	Asn	Gly	Thr
		35					40					45			
Gly	Tyr	Cys	Lys	Cys	Pro	Gly	Phe	Leu	Gly	Glu	Tyr	Cys	Gln	His	Arg
	50					55					60				
Pro	Cys	Glu	Lys	Asn	Arg	Cys	Gly	Asp	Pro	Ser	Thr	Cys			
65					70					75					

<210> 267
 <211> 62
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 267															
Met	Pro	Leu	Arg	Pro	Ala	Leu	Ala	Leu	Leu	Leu	Trp	Leu	Cys	Ala	Pro
1				5				10						15	
Ala	His	Ala	Leu	Gln	Cys	Arg	Gly	Glu	Pro	Cys	Val	Asn	Glu	Gly	Cys
			20					25				30			
Val	Thr	Tyr	His	Asn	Gly	Thr	Gly	Cys	Cys	Pro	Gly	Phe	Leu	Gly	Glu
		35					40					45			
Tyr	Cys	Gln	His	Arg	Pro	Cys	Glu	Lys	Asn	Arg	Cys	Thr	Cys		
	50					55					60				

<210> 268
 <211> 79
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 268															
Met	Pro	Asp	Leu	Arg	Pro	Ala	Ala	Leu	Arg	Ala	Leu	Leu	Trp	Leu	Trp
1				5				10						15	
Leu	Cys	Gly	Ala	Gly	Pro	Ala	His	Ala	Leu	Gln	Cys	Arg	Gly	Gly	Gln
			20					25					30		
Glu	Pro	Cys	Val	Asn	Glu	Gly	Thr	Cys	Val	Thr	Tyr	His	Asn	Gly	Thr
		35					40					45			
Gly	Phe	Cys	Arg	Cys	Pro	Glu	Gly	Phe	Leu	Gly	Glu	Tyr	Cys	Gln	His
	50					55					60				
Arg	Asp	Pro	Cys	Glu	Lys	Asn	Arg	Cys	Gln	Asn	Gly	Gly	Thr	Cys	
65					70					75					

<210> 269
 <211> 163
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 269															
Ile	Arg	Gly	Arg	Val	Asp	Asp	Gln	Thr	Cys	Asp	Asn	Leu	Ser	Gln	Asn
1				5				10						15	
Pro	Pro	His	His	Leu	Leu	Leu	Arg	Leu	Leu	Asp	His	Trp	Gly	Asp	Pro
			20					25					30		
Ala	Gly	Cys	Trp	Ser	Leu	Gly	Gln	Thr	Tyr	Ser	Gly	His	Leu	Tyr	Leu
		35					40					45			
Pro	Tyr	Cys	Arg	Glu	Leu	His	Lys	Cys	Ser	Leu	Cys	Ala	His	Arg	Asn
	50					55					60				

Trp His His Tyr Cys Cys Leu Trp Pro Val Trp Met Leu Cys Tyr Met
 65 70 75 80
 Ser Trp Pro Met Asp Ala Glu Thr Val Cys His Val Ser Val Pro Gly
 85 90 95
 Val Pro Gly Ala Arg Ser Trp His Phe Arg Val Cys Val Ser Ser Asp
 100 105 110
 Gln Gly His Leu Pro Glu Asp Leu His Gly Arg Tyr Ala Asp Leu Gln
 115 120 125
 Trp Gln Glu Glu Pro Gly Ser Gly Pro Cys Ala Ala Gln Pro Glu Leu
 130 135 140
 Leu Trp Cys Ala Glu Leu His Gln Leu Glu His Gln Pro Leu Leu Pro
 145 150 155 160
 Gly Ala Trp

<210> 270
 <211> 170
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 270
 Ile Arg Gly Arg Val Asp Gln Val Gln His Pro Pro Leu Cys Leu Leu
 1 5 10 15
 Asp Gln His Gln Gln Glu Cys Ile Pro Pro Cys Leu Pro Pro Asp His
 20 25 30
 Leu Gln Asp Pro Gln His Pro Phe Leu Leu Pro Asp His His Val Pro
 35 40 45
 His Leu Val Val Leu Ile Gln Pro Gln Leu Cys Arg Ala Leu Ala Pro
 50 55 60
 Gln Gly His Ile Leu His Gln Ile Cys Pro Phe Gln Ser Tyr Pro His
 65 70 75 80
 Met Val His Pro Gln Ile Gln Leu Gln Leu Val Leu Val His Gly Asp
 85 90 95
 Pro Cys Leu Leu Asp Leu Gly Arg Gln Glu Trp Glu Gly Ser Ile Leu
 100 105 110
 Pro Leu Ile Cys His Ile His Leu Gln Ala His Ile Pro Leu Leu Leu
 115 120 125
 Pro Lys Pro Leu Gly Gln His His Leu Phe His Gly Ala Pro Phe His
 130 135 140
 Gln Glu Pro Gly Asp His Gln His His Ile Leu Pro Leu Gln Asp Arg
 145 150 155 160
 Ile Pro His Gln Asp Ser Ile Leu Leu Pro
 165 170

<210> 271
 <211> 170
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 271
 Ile Arg Gly Arg Val Asp Cys Gly Gly Ala Ser Cys His Asn Thr Leu
 1 5 10 15
 Gly Ser Tyr Lys Cys Met Cys Pro Ala Gly Phe Gln Tyr Glu Gln Phe
 20 25 30
 Ser Gly Gly Cys Gln Asp Ile Asn Glu Cys Gly Ser Ala Gln Ala Pro
 35 40 45
 Cys Ser Tyr Gly Cys Ser Asn Thr Glu Gly Gly Tyr Leu Cys Gly Cys

50	55	60															
Pro	Pro	Gly	Tyr	Phe	Arg	Ile	Gly	Gln	Gly	His	Cys	Val	Ser	Gly	Met		
65					70					75					80		
Gly	Met	Gly	Arg	Gly	Asn	Pro	Glu	Pro	Pro	Val	Ser	Gly	Glu	Met	Asp		
				85					90					95			
Asp	Asn	Ser	Leu	Ser	Pro	Glu	Ala	Cys	Tyr	Glu	Cys	Lys	Ile	Asn	Gly		
			100					105					110				
Tyr	Pro	Lys	Arg	Gly	Arg	Lys	Arg	Arg	Ser	Thr	Asn	Glu	Thr	Asp	Ala		
		115					120					125					
Ser	Asn	Ile	Glu	Asp	Gln	Ser	Glu	Thr	Glu	Ala	Asn	Val	Ser	Leu	Ala		
		130					135					140					
Ser	Trp	Asp	Val	Glu	Lys	Thr	Ala	Ile	Phe	Ala	Phe	Asn	Ile	Ser	His		
145					150					155					160		
Val	Ser	Asn	Lys	Val	Arg	Ile	Leu	Leu	Leu								
				165					170								

<210> 272
 <211> 130
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 272

Ile	Arg	Gly	Arg	Val	Asp	Gly	Asp	Val	Tyr	Asn	Pro	Ser	Thr	Gly	Val		
1				5					10					15			
Phe	Thr	Ala	Pro	Tyr	Asp	Gly	Arg	Tyr	Leu	Ile	Thr	Ala	Thr	Leu	Thr		
			20					25					30				
Pro	Glu	Arg	Asp	Ala	Tyr	Val	Glu	Ala	Val	Leu	Ser	Val	Ser	Asn	Ala		
			35				40					45					
Ser	Ser	Gly	Pro	Ala	Ala	Tyr	Arg	Trp	Val	Gln	Glu	Arg	Val	Pro	Gly		
	50				55					60							
Ile	Pro	Pro	Pro	Ser	Arg	Ser	Phe	Ala	Tyr	Leu	Arg	Gly	Pro	Gly	Gly		
65				70					75					80			
Ile	Pro	Pro	His	Arg	Ala	Pro	Glu	Gly	Gly	Arg	Cys	Ser	Gln	Arg	Arg		
			85					90					95				
Gly	Asp	Trp	Gly	Gln	Ala	Gly	Ser	His	Arg	Leu	Asn	Val	Leu	His	Ile		
			100				105						110				
Trp	Gly	Phe	Leu	Ile	Ser	Phe	Pro	Phe	Pro	Pro	Leu	Arg	Trp	Leu	Gly		
		115				120						125					
Arg	Cys																
	130																

<210> 273
 <211> 143
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 273

Ile	Arg	Gly	Arg	Val	Asp	Lys	Glu	Lys	Lys	Lys	Val	Phe	Thr	Leu	Gly		
1				5					10					15			
Cys	Gly	Thr	Ile	Ser	Gly	Leu	Pro	Glu	Gly	Phe	Pro	Leu	Glu	Leu	Pro		
			20					25					30				
Glu	Phe	Pro	Pro	Gly	His	Phe	Val	Ser	Arg	Ser	Gln	Arg	Gln	Ala	Gly		
		35				40					45						
Tyr	Ala	Pro	Gly	Arg	Ala	Val	Gly	Ala	Thr	Leu	Ala	Asp	Cys	Ser	Pro		
	50				55					60							
Leu	Leu	His	Leu	Leu	Pro	Ala	Ile	His	Pro	Gln	Glu	Val	Phe	Pro	Gln		
65				70					75					80			

His	Trp	Leu	Val	Arg	Ser	Ser	Leu	Cys	Pro	Gly	Glu	Asn	Gly	Ser	Ser	
				85					90					95		
Gly	Ser	Gln	Ala	Pro	Leu	Gln	Gly	Leu	Arg	Gly	Ile	Phe	Gly	Leu	Trp	
			100					105					110			
Gly	Arg	Arg	Ser	Arg	Ala	Arg	Phe	Cys	Gly	Pro	Arg	Pro	Val	Ala	Arg	
		115					120					125				
Leu	Gly	Gly	Gly	Thr	Ser	Ala	Gly	Arg	Glu	Leu	Gly	Leu	Thr	Pro		
	130					135					140					

<210> 274
 <211> 131
 <212> PRT
 <213> Pseudomonas aeruginosa

Ile	Arg	Gly	Arg	Val	Asp	Gly	Asp	Asx	Val	Tyr	Asn	Pro	Ser	Thr	Gly	
1				5					10					15		
Val	Phe	Thr	Ala	Pro	Tyr	Asp	Gly	Arg	Tyr	Leu	Ile	Thr	Ala	Thr	Leu	
			20					25					30			
Thr	Pro	Glu	Arg	Asp	Ala	Tyr	Val	Glu	Ala	Val	Leu	Ser	Val	Ser	Asn	
		35					40					45				
Ala	Ser	Ser	Gly	Pro	Ala	Ala	Tyr	Arg	Trp	Val	Trp	Glu	Arg	Val	Pro	
		50				55					60					
Gly	Ile	Pro	Pro	Pro	Ser	Arg	Ser	Phe	Ala	Tyr	Leu	Arg	Gly	Pro	Gly	
65					70					75					80	
Gly	Ile	Pro	Pro	His	Arg	Ala	Pro	Glu	Gly	Gly	Arg	Cys	Ser	Gln	Arg	
				85					90					95		
Arg	Gly	Asp	Trp	Gly	Gln	Ala	Gly	Ser	His	Arg	Leu	Asn	Val	Leu	His	
		100						105					110			
Ile	Trp	Gly	Phe	Leu	Ile	Ser	Phe	Pro	Phe	Pro	Pro	Leu	Arg	Trp	Leu	
		115					120					125				
Gly	Arg	Cys														
	130															

<210> 275
 <211> 168
 <212> PRT
 <213> Pseudomonas aeruginosa

Ile	Arg	Gly	Arg	Val	Asp	Arg	Asn	Cys	Gln	Asp	Ile	Asp	Glu	Cys	Val	
1				5					10					15		
Thr	Gly	Ile	His	Asn	Cys	Ser	Ile	Asn	Glu	Thr	Cys	Phe	Asn	Ile	Gln	
			20					25					30			
Gly	Gly	Phe	Arg	Cys	Leu	Ala	Phe	Glu	Cys	Pro	Glu	Asn	Tyr	Arg	Arg	
		35					40					45				
Ser	Ala	Ala	Thr	Leu	Gln	Gln	Glu	Lys	Thr	Asp	Thr	Val	Arg	Cys	Ile	
		50				55					60					
Lys	Ser	Cys	Arg	Pro	Asn	Asp	Val	Thr	Cys	Val	Phe	Asp	Pro	Val	His	
65					70					75					80	
Thr	Ile	Ser	His	Thr	Val	Ile	Ser	Leu	Pro	Thr	Phe	Arg	Glu	Phe	Thr	
			85						90					95		
Arg	Pro	Glu	Glu	Ile	Ile	Phe	Leu	Arg	Ala	Ile	Thr	Pro	Pro	His	Pro	
		100						105					110			
Ala	Ser	Gln	Ala	Asn	Ile	Ile	Phe	Asp	Ile	Thr	Glu	Gly	Asn	Leu	Arg	
		115					120					125				
Asp	Ser	Phe	Asp	Ile	Ile	Lys	Arg	Tyr	Met	Asp	Gly	Met	Thr	Val	Gly	

130		135		140
Val Val Arg Gln Val Arg Pro Ile Val Gly Pro Phe His Ala Val Leu				
145		150		155
Lys Leu Glu Met Asn Tyr Val Val				160
	165			

<210> 276
 <211> 145
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 276

Ile Arg Gly Arg Val Asp Thr Leu Gln Ser Asn Ala Pro Ser Ser Met	
1 5 10 15	
Met Val Lys Asp Glu Tyr Val His Asp Phe Glu Gly Gln Pro Ser Leu	
20 25 30	
Ser Thr Glu Gly His Ser Ile Gln Thr Ile Gln His Pro Pro Ser Asn	
35 40 45	
Arg Ala Ser Thr Glu Thr Tyr Ser Thr Pro Ala Leu Leu Ala Pro Ser	
50 55 60	
Glu Ser Asn Ala Thr Ser Thr Ala Asn Phe Pro Asn Ile Pro Val Ala	
65 70 75 80	
Ser Thr Ser Gln Pro Ala Ser Ile Leu Gly Gly Ser His Ser Glu Gly	
85 90 95	
Leu Leu Gln Ile Ala Ser Gly Pro Gln Pro Gly Gln Gln Gln Asn Gly	
100 105 110	
Phe Thr Gly Gln Pro Ala Thr Tyr His His Asn Ser Thr Thr Thr Trp	
115 120 125	
Thr Gly Ser Arg Thr Ala Pro Tyr Thr Pro Asn Leu Pro His His Gln	
130 135 140	
Lys	
145	

<210> 277
 <211> 139
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 277

Ile Arg Gly Arg Val Asp Arg Arg Pro Arg Ser Gly Gly Leu Arg Ala	
1 5 10 15	
Arg Gly Val Glu Ala Phe Ala Pro Gly Leu Arg Ser Val Ala Pro Gly	
20 25 30	
Pro Glu Pro Leu Lys Gln Glu Gly Arg Arg Glu Trp Gly Ser Ser	
35 40 45	
Ile Gly Thr Pro Ser Pro Cys Gly Ser Ala Gln Ala Ala Ala Glu	
50 55 60	
Glu Ala Thr Glu Lys Met Pro Ala Leu Arg Pro Ala Leu Leu Trp Ala	
65 70 75 80	
Leu Leu Ala Leu Trp Leu Cys Cys Ala Thr Pro Ala His Ala Gln Cys	
85 90 95	
Arg Asp Gly Tyr Glu Pro Cys Val Asn Glu Gly Met Cys Val Thr Tyr	
100 105 110	
His Asn Gly Thr Gly Tyr Cys Lys Cys Pro Gly Phe Leu Gly Glu Tyr	
115 120 125	
Cys Gln His Arg Pro Cys Glu Lys Asn Arg Cys	
130 135	

<210> 278
 <211> 953
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 278

Met	Ile	Asn	Ser	His	Leu	Leu	Tyr	Arg	Leu	Ser	Tyr	Arg	Gly	Thr	Ser
1				5					10					15	
Phe	Phe	Gln	Pro	Trp	Thr	Leu	Pro	Val	Leu	Leu	Asp	Ser	Arg	Leu	Arg
			20					25					30		
Gly	Ala	Pro	Phe	Tyr	Gly	Cys	Ala	Arg	Ala	Cys	Gln	Pro	Ser	Asp	Pro
		35				40						45			
Lys	Ser	Phe	Ser	Ser	Phe	Ser	Thr	Ser	Asp	Lys	Thr	Ala	Leu	Pro	Leu
	50					55					60				
His	Ala	Ala	Ala	Leu	Ser	Arg	Leu	Pro	Asp	Ala	His	Glu	Lys	Ala	Pro
65				70						75					80
Pro	Lys	Arg	Gly	Phe	Pro	Cys	Pro	Pro	Pro	Lys	Arg	Ser	Gly	Glu	Asp
			85					90						95	
Asp	Leu	Val	Ala	Phe	His	Leu	Arg	Arg	Asp	Thr	Gly	Thr	Arg	Arg	Glu
			100					105					110		
Phe	Ala	Gly	Gln	Asp	Gln	Leu	Arg	Gln	Arg	Val	Leu	Asp	Pro	Ala	Leu
		115					120					125			
Asp	Gly	Pro	Leu	Gln	Arg	Ala	Cys	Ala	Ile	Asp	Arg	Val	Glu	Ala	Asp
	130					135					140				
Gly	Asn	Gln	Leu	Val	Gln	Arg	Leu	Leu	Ala	Gln	Phe	Gln	Ala	Gln	Leu
145					150					155					160
Ala	Leu	Gly	Gln	Ala	Leu	Ala	Gln	Ala	Thr	Glu	Leu	Asp	Leu	Gly	Asp
			165					170						175	
Ala	Gly	Asp	Leu	Leu	Ala	Ser	Gln	Arg	Leu	Glu	His	His	His	Phe	Val
			180					185					190		
Asp	Pro	Val	Asp	Glu	Phe	Arg	Thr	Glu	Val	Arg	Ile	Asp	Arg	Val	His
		195					200					205			
His	Cys	Gly	Thr	Leu	Arg	Leu	Ala	Val	Ala	Gly	Gln	Leu	Leu	Asp	Leu
	210					215					220				
Arg	Arg	Thr	Glu	Val	Gly	Gly	His	His	His	His	Gly	Val	Ala	Glu	Val
225					230					235					240
His	Arg	Thr	Pro	Val	Thr	Val	Gly	Gln	Ala	Ser	Val	Leu	Glu	His	Leu
			245					250						255	
Glu	Glu	Asn	Val	Glu	Tyr	Ile	Arg	Met	Gly	Leu	Leu	His	Leu	Val	Gln
		260						265					270		
Gln	His	His	Arg	Val	Gly	Leu	Ala	Ala	Asp	Arg	Leu	Gly	Gln	Val	Ala
		275					280					285			
Ala	Phe	Leu	Glu	Ala	Asp	Val	Ala	Arg	Arg	Arg	Ala	Asp	Gln	Ala	Gly
	290					295					300				
His	Arg	Val	Phe	Leu	His	Glu	Leu	Gly	His	Ile	Tyr	Pro	His	Gln	Arg
305					310					315					320
Leu	Leu	Gly	Ile	Glu	Glu	Glu	Leu	Gly	Gln	Arg	Leu	Ala	Gln	Leu	Gly
			325						330					335	
Leu	Ala	His	Pro	Gly	Arg	Ala	Glu	Glu	Glu	Glu	Arg	Ala	Ala	Arg	Pro
		340					345						350		
Val	Arg	Ile	Gly	Glu	Ala	Gly	Ala	Arg	Thr	Ala	His	Gly	Val	Gly	His
		355					360					365			
Gly	Asp	Tyr	Arg	Leu	Val	Leu	Ala	Asp	His	Ser	Pro	Met	Gln	Leu	Leu
	370					375					380				
Leu	His	Ala	Gln	Gln	Leu	Leu	Ala	Leu	Ala	Leu	Glu	His	Leu	Arg	His
385					390					395					400
Arg	Asp	Thr	Gly	Pro	Leu	Gly	Asn	His	Phe	Gly	Asp	Phe	Leu	Val	Gly
				405					410					415	

His Leu Val Ala Gln Gln Leu Val Leu Gly Leu Ala Val Leu Val Asp
 420 425 430
 His Leu Gln Ala Ala Phe Gln Val Arg Asp Gly Leu Val Leu Asp Ala
 435 440 445
 Arg His Ala Leu Glu Val Ala Leu Ala Pro Arg Arg Leu His Leu Leu
 450 455 460
 Leu Gly Leu Leu Asp Leu Leu Leu Asp Leu Arg Arg Ala Leu His Leu
 465 470 475 480
 Gly Leu Leu Gly Leu Pro Asp Leu Leu Glu Val Gly Val Phe Ala Leu
 485 490 495
 Glu Leu Asp Asp Ile Leu Leu Gln Leu Gly Gln Ala Leu Pro Gly Gly
 500 505 510
 Phe Val Val Phe Leu Leu Gln Arg Leu Ala Leu Asp Leu Gln Leu Asp
 515 520 525
 Gln Ala Thr Val Glu Thr Ile Gln Phe Leu Arg Leu Gly Val Asp Leu
 530 535 540
 His Ala Asp Ala Ala Gly Gly Leu Val Asp Gln Val Asp Gly Leu Val
 545 550 555 560
 Arg Gln Leu Pro Ile Gly Asp Val Ala Val Arg Gln Leu Gly Arg Gly
 565 570 575
 Asp Asp Arg Ala Val Gly Asp Ala His Pro Val Val His Phe Ile Ala
 580 585 590
 Phe Leu Glu Ala Thr Glu Asp Gly Asp Gly Val Phe Leu Ala Arg Phe
 595 600 605
 Val His Gln His Leu Leu Glu Ala Ala Leu Gln Arg Gly Ile Leu Leu
 610 615 620
 Asp Val Leu Ala Ile Leu Val Glu Gly Ser Ser Thr Asp Ala Val Gln
 625 630 635 640
 Leu Ala Ala Arg Gln Ser Arg Leu Glu His Val Ala Gly Val His Gly
 645 650 655
 Thr Phe Arg Leu Ala Gly Ala Asp His Gly Val Gln Phe Val Asp Glu
 660 665 670
 Gln Asp Asp Pro Ala Phe Leu Leu Ala Gln Phe Val Glu Asp Arg Leu
 675 680 685
 Gln Ala Phe Leu Glu Leu Ala Ala Glu Leu Gly Thr Gly Asp Gln Arg
 690 695 700
 Pro His Val Gln Gly Gln Gln Ala Leu Val Leu Glu Ala Val Arg His
 705 710 715 720
 Phe Ala Val Asp Asp Ala Leu Gly Gln Ala Leu Asp Asp Gly Gly Leu
 725 730 735
 Ala Asp Ala Gly Phe Ala Asp Gln His Arg Val Val Leu Gly Pro Pro
 740 745 750
 Leu Gln Asp Leu Asp Gly Pro Ala Asp Leu Val Val Ala Thr Asp His
 755 760 765
 Arg Val Glu Leu Ala Phe Leu Gly Ala Leu Gly His Val Asp Gly Val
 770 775 780
 Leu Val Gln Arg Leu Ala Arg Leu Leu Asp Val Arg Val Val His Arg
 785 790 795 800
 Phe Ala Ala Thr Gln Val Gly His Gly Ile Leu Gln Arg Leu Ala Arg
 805 810 815
 His Ala Leu Ala Glu Gln Gln Leu Ala Glu Pro Gly Val Leu Val His
 820 825 830
 Arg Gly Gln Gln Tyr Gln Leu Ala Gly Asp Glu Leu Val Ala Leu Leu
 835 840 845
 Leu Gly Gln Ala Val Ser Leu Val Glu Gln Ala Cys Glu Ile Leu Gly
 850 855 860
 Gln Val His Val Ala Gly Arg Ala Leu Asp Leu Arg Gln Arg Val Glu
 865 870 875 880
 Phe Phe Val Glu Ala Ala Ala Gln Gly Gly Asp Ile Glu Ala Asp Leu

				885					890					895			
His	Gln	Gln	Gly	Leu	Asp	Arg	Thr	Ala	Leu	Leu	Leu	Glu	Gln	Gly	Gly		
			900					905					910				
Lys	Gln	Val	His	Arg	Leu	Asp	Gly	Arg	Met	Val	Met	Ala	Asn	Gly	Gln		
		915					920					925					
Gly	Leu	Gly	Val	Gly	Glu	Arg	Gln	Leu	Gln	Leu	Ala	Gly	Gln	Thr	Val		
	930					935					940						
Tyr	Ser	His	Gly	Ser	Ser	Phe	Leu	Leu									
945					950												

<210> 279
 <211> 854
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 279

Met	Arg	Ile	Asp	Arg	Leu	Thr	Ser	Lys	Leu	Gln	Leu	Ala	Leu	Ser	Asp		
1				5				10						15			
Ala	Gln	Ser	Leu	Ala	Val	Gly	His	Asp	His	Pro	Ala	Ile	Glu	Pro	Val		
			20				25						30				
His	Leu	Leu	Ser	Ala	Leu	Leu	Glu	Gln	Gln	Gly	Gly	Ser	Ile	Lys	Pro		
		35				40						45					
Leu	Leu	Met	Gln	Val	Gly	Phe	Asp	Ile	Ala	Ala	Leu	Arg	Ser	Gly	Leu		
	50					55					60						
Asn	Lys	Glu	Leu	Asp	Ala	Leu	Pro	Lys	Ile	Gln	Ser	Pro	Thr	Gly	Asp		
65				70					75						80		
Val	Asn	Leu	Ser	Gln	Asp	Leu	Ala	Arg	Leu	Leu	Asn	Gln	Ala	Asp	Arg		
				85				90						95			
Leu	Ala	Gln	Gln	Lys	Gly	Asp	Gln	Phe	Ile	Ser	Ser	Glu	Leu	Val	Leu		
		100					105						110				
Leu	Ala	Ala	Met	Asp	Glu	Asn	Thr	Arg	Leu	Gly	Lys	Leu	Leu	Leu	Gly		
		115					120					125					
Gln	Gly	Val	Ser	Arg	Lys	Ala	Leu	Glu	Asn	Ala	Val	Ala	Asn	Leu	Arg		
	130					135					140						
Gly	Gly	Glu	Ala	Val	Asn	Asp	Pro	Asn	Val	Glu	Glu	Ser	Arg	Gln	Ala		
145					150				155						160		
Leu	Asp	Lys	Tyr	Thr	Val	Asp	Met	Thr	Lys	Arg	Ala	Glu	Glu	Gly	Lys		
			165					170						175			
Leu	Asp	Pro	Val	Ile	Gly	Arg	Asp	Asp	Glu	Ile	Arg	Arg	Thr	Ile	Gln		
		180					185						190				
Val	Leu	Gln	Arg	Arg	Thr	Lys	Asn	Asn	Pro	Val	Leu	Ile	Gly	Glu	Pro		
	195					200						205					
Gly	Val	Gly	Lys	Thr	Ala	Ile	Val	Glu	Gly	Leu	Ala	Gln	Arg	Ile	Ile		
	210					215					220						
Asn	Gly	Glu	Val	Pro	Asp	Gly	Leu	Lys	Asp	Lys	Arg	Leu	Leu	Ala	Leu		
225				230					235						240		
Asp	Met	Gly	Ala	Leu	Ile	Ala	Gly	Ala	Lys	Phe	Arg	Gly	Glu	Phe	Glu		
			245						250					255			
Glu	Arg	Leu	Lys	Ala	Val	Leu	Asn	Glu	Leu	Gly	Lys	Gln	Glu	Gly	Arg		
		260					265						270				
Val	Ile	Leu	Phe	Ile	Asp	Glu	Leu	His	Thr	Met	Val	Gly	Ala	Gly	Lys		
		275					280					285					
Ala	Glu	Gly	Ala	Met	Asp	Ala	Gly	Asn	Met	Leu	Lys	Pro	Ala	Leu	Ala		
	290					295					300						
Arg	Gly	Glu	Leu	His	Cys	Val	Gly	Ala	Thr	Thr	Leu	Asp	Glu	Tyr	Arg		
305				310						315					320		
Gln	Tyr	Ile	Glu	Lys	Asp	Ala	Ala	Leu	Glu	Arg	Arg	Phe	Gln	Lys	Val		
				325					330					335			

				805					810				815			
Arg	Ala	Ile	Gln	Arg	Trp	Ile	Glu	Asn	Pro	Leu	Ala	Gln	Leu	Ile	Leu	
			820					825					830			
Ala	Gly	Lys	Phe	Ala	Pro	Gly	Ala	Ser	Ile	Ser	Ala	Lys	Val	Glu	Gly	
		835					840					845				
Asp	Glu	Ile	Val	Phe	Ala											
	850															

<210> 280

<211> 967

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 280

Leu	Glu	Phe	Gly	Ser	Ala	Thr	Trp	Thr	Arg	Thr	Arg	Asp	Pro	Met	Ile	
1				5					10					15		
Asn	Ser	His	Leu	Leu	Tyr	Arg	Leu	Ser	Tyr	Arg	Gly	Thr	Ser	Phe	Phe	
			20					25					30			
Gln	Pro	Trp	Thr	Leu	Pro	Val	Leu	Leu	Asp	Ser	Arg	Leu	Arg	Gly	Ala	
		35					40					45				
Pro	Phe	Tyr	Gly	Cys	Ala	Arg	Ala	Cys	Gln	Pro	Ser	Asp	Pro	Lys	Ser	
	50					55					60					
Phe	Ser	Ser	Phe	Ser	Thr	Ser	Asp	Lys	Thr	Ala	Leu	Pro	Leu	His	Ala	
65					70					75					80	
Ala	Ala	Leu	Ser	Arg	Leu	Pro	Asp	Ala	His	Glu	Lys	Ala	Pro	Pro	Lys	
				85					90					95		
Arg	Gly	Phe	Pro	Cys	Pro	Pro	Pro	Lys	Arg	Ser	Gly	Glu	Asp	Asp	Leu	
			100					105					110			
Val	Ala	Phe	His	Leu	Arg	Arg	Asp	Thr	Gly	Thr	Arg	Arg	Glu	Phe	Ala	
		115					120					125				
Gly	Gln	Asp	Gln	Leu	Arg	Gln	Arg	Val	Leu	Asp	Pro	Ala	Leu	Asp	Gly	
	130					135					140					
Pro	Leu	Gln	Arg	Ala	Cys	Ala	Ile	Asp	Arg	Val	Glu	Ala	Asp	Gly	Asn	
145					150				155						160	
Gln	Leu	Val	Gln	Arg	Leu	Leu	Ala	Gln	Phe	Gln	Ala	Gln	Leu	Ala	Leu	
				165					170					175		
Gly	Gln	Ala	Leu	Ala	Gln	Ala	Thr	Glu	Leu	Asp	Leu	Gly	Asp	Ala	Gly	
			180					185					190			
Asp	Leu	Leu	Ala	Ser	Gln	Arg	Leu	Glu	His	His	His	Phe	Val	Asp	Pro	
	195						200					205				
Val	Asp	Glu	Phe	Arg	Thr	Glu	Val	Arg	Ile	Asp	Arg	Val	His	His	Cys	
	210					215					220					
Gly	Thr	Leu	Arg	Leu	Ala	Val	Ala	Gly	Gln	Leu	Leu	Asp	Leu	Arg	Arg	
225					230					235					240	
Thr	Glu	Val	Gly	Gly	His	His	His	His	Gly	Val	Ala	Glu	Val	His	Arg	
			245						250					255		
Thr	Pro	Val	Thr	Val	Gly	Gln	Ala	Ser	Val	Leu	Glu	His	Leu	Glu	Glu	
			260					265						270		
Asn	Val	Glu	Tyr	Ile	Arg	Met	Gly	Leu	Leu	His	Leu	Val	Gln	Gln	His	
	275						280						285			
His	Arg	Val	Gly	Leu	Ala	Ala	Asp	Arg	Leu	Gly	Gln	Val	Ala	Ala	Phe	
	290					295					300					
Leu	Glu	Ala	Asp	Val	Ala	Arg	Arg	Arg	Ala	Asp	Gln	Ala	Gly	His	Arg	
305					310					315					320	
Val	Phe	Leu	His	Glu	Leu	Gly	His	Ile	Tyr	Pro	His	Gln	Arg	Leu	Leu	
			325						330					335		
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 <213> *Pseudomonas aeruginosa*

<400> 281

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<211> 309

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 282

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<210> 283

<211> 1862

<212> DNA

<213> *Pseudomonas aeruginosa*

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<211> 1462

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 284

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<210> 285

<211> 830

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 285

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<210> 286
 <211> 987
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 286

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<210> 287
 <211> 987
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 <213> *Pseudomonas aeruginosa*

<400> 287

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 <211> 1118
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 288

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<210> 289

<211> 2427

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 289

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<210> 290

<211> 1185

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 290

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